

## 18 RISK ASSESSMENT

### *About Beacon Climbing Centre Risk Assessments*

In accordance with the Management of Health and Safety at Work Regulations 1999, Beacon Climbing Centre carries out risk assessments of all activities that present a risk to their employees and visitors. These risk assessments are carried out in line with Health & Safety Executive guidance, recorded in a standard format, and kept with the relevant procedure. For each activity or operation, the following information is recorded:

- i. Description of the nature of the hazard.
- ii. Who is likely to be affected by a particular hazard?
- iii. Risk Factor. The risk factor is calculated for each hazard by multiplying the **Likelihood** of occurrence by the **Severity** of the outcome (**L x S**) gives a measure of the precautions necessary to minimise the risk. If the risk factor is greater than 10 then either additional precautions need to be put into place to reduce the risks below 10 or the activity or operation is not carried out.
  - The **likelihood** of occurrence (**L**), recorded on the following scale:
    - 1 Could occur but very rarely
    - 2 Could occur but rarely
    - 3 Could occur from time to time
    - 4 Likely to occur
    - 5 Likely to occur often
  - The **severity** of the outcome (**S**), recorded on the following scale:
    - 1 Slight inconvenience
    - 2 Minor injury requiring first aid
    - 3 Medical attention required
    - 4 Major injury leading to hospitalisation
    - 5 Fatality or serious injury leading to disability
- iv. Procedures are then written to ensure that the activity or operation is carried out in a way which minimises exposure to the risk.

Risk assessments are reviewed when things change, or when there is reason to believe that they are no longer valid.

**Should a Risk Assessment not exist for an activity or procedure one *must* be written prior to commencing said activity.**

Risk assessments will be undertaken by: **The Centre Manager, appropriate Duty Managers and The Chief Instructor**

Approval for the required action to remove or control risks will be given by: **The Directors.**

## 18.1 CUSTOMER RISK ASSESSMENT – ALL CUSTOMERS

## Non Climbing Risks

Hazard Identified	Who Affected	Risk Factor	Current Procedure
Accident in the carpark (outside)	Customers	1x5=5	Keep areas clear around the main entrance and inform <i>directors</i> if lights are not working.
Slipping or tripping including on Ice. (outside)	Customers	1x4=4	Carpark is gritted overnight – organised by the landlords. Snow shovels and salt are available for clearing snow fall and ice. The grounds surrounding the centre are maintained by <i>the centre staff</i> and they should be informed of any issues which require attention.
Fingers getting caught in the edge of doors	Customers	2x4=4	Door closers are 'soft closing' and front door does not have a frame to catch behind.
Computer and/or other items being pulled of the counter onto customers.	Customers	1x2=2	Counter staff aware of the possibility. Cables are <i>kept beneath/within the counter</i> where possible. Customers should be asked to stop if their actions are considered hazardous.
Cuts to customers caused by sharp implements left on the counter top	Customers	1x3=3	Scissors and other sharp implements should be stored under the counter out of reach of customers.
Children falling off chairs and other items in the café/shop.	Customers	1x3=3	Maintain awareness and ask to stop where necessary.
Falling down stairs.	Customers & staff	1x4=4	Staff must ensure the area around the stairwells is kept clear and free of obstacles.
Blocking of Fire exits with customer bags or equipment	Customers	1x5=5	Staff should be aware of fire exits at all times and ensure they are kept clear.
Contact with chemicals	Customers	1x5=5	All chemicals should be stored in key-coded cupboards away from public areas.
<i>Customers falling from balcony</i>	<i>Customers</i>	<i>1x4=4</i>	<i>No furniture to be placed against balcony glass.</i>
Slipping or tripping	Customers & Staff	2x3=6	Use 'Caution' signs for wet floors and keep all areas free from obstruction/hazards.
Fire in any area of the building	Customers & Staff	1x5=5	The centre is a non-smoking area. Prior to any 'hot work' being undertaken the duty manager should be informed. Call points are present at each exit and subjected to <i>weekly</i> checks. Fire extinguishers are supplied and checked annually. Emergency lights are provided and subject to monthly checks.

**18.2 CUSTOMER RISK ASSESSMENT – ALL CLIMBERS**
*Unsupervised Climbing with Ropes and Bouldering*

Hazard Identified	Who Affected	Risk Factor	Current Procedure
Climber falling because of belayer error.	Customers	2x5=10	<ul style="list-style-type: none"> <li>The hazards outlined on this page are hazards arising from climber error. Besides the use of the centre by instructed groups, it is the policy of Beacon Climbing Centre to allow climbers that are prepared to sign a registration form declaring a certain level of competency to climb unsupervised. This is common practice in the UK and in line with the BMC and ABC's guidelines. At <i>The Beacon</i> we take the following commonly recognised precautions:</li> <li>Experienced climbers have to register before climbing by giving their personal details, confirming their basic competence to use <i>The Beacon</i> safely and signing a disclaimer.</li> <li>Customer monitoring by <i>The Beacon</i> staff who are trained in providing emergency assistance.</li> <li>Displaying British Mountaineering Council participation statement on notice boards and at point of entry. Displaying notices around the centre pointing out common faults and important information and procedures.</li> <li>The over-riding principal is that experienced climbers should be self-reliant and responsible for their own safety. The same hazards apply to U18's and novices and <i>The Beacon</i> has strict procedures in place to protect these people.</li> <li>All Instructors must hold a nationally recognised climbing qualification (such as SPA, CWA or MIA). Instructed groups will have a maximum of eight customers to one instructor.</li> <li>Hair should be tied up and rings/loose jewellery removed. Instructors should be vigilant and not allow novices to hold bolt hangers or quickdraws.</li> <li>Instructors should follow the specific guidelines for the sessions they are instructing.</li> </ul>
Climber falling because of personal equipment or knot failure.	Customers	1x5=5	
Climber falling because of belayers equipment failure.	Customers	1x5=5	
Climber injured because of being lowered off too quickly.	Customers	3x3=9	
Lead climber injured due to failure to clip a protection point.	Customers	1x3=3	
Belayer or spectator injured by falling climber.	Customers	1x3=3	
Falling awkwardly in bouldering areas.	Customers	3x3=9	
Falling onto another climber in bouldering area.	Customers	2x3=6	
Lead climber injured due to failure to clip the first or second bolt.	Customers	2x2=4	
Lead climber falling because rope too short.	Customers	1x5=5	
Climber stranded because of jammed belay device.	Customers	1x2=2	
Climber becoming 'stuck' on wall because of failure of knot/harness.	Customers	1x5=5 potential	
Entanglement or entrapment	Customers	1x3=3	

*Fabric of the Centre and Equipment*

Hazard Identified	Who affected	Risk Factor	Current Procedure
Climber falling because of <i>Beacon</i> quick draw, lower off or rope failure.	Customers	1x5=5	Equipment and anchor points conform to the appropriate European standard. Their history is logged and they are subject to the centre's quarterly equipment checks.
Climbers injured due to structural failure of wall or protection / anchor points.	Customers	1x5=5	Wall designed to conform with European Standard 12572. Protection and anchor points proof tested every 5 years and inspected visually as per equipment checks.
Climber falling because of hire equipment failure.	Customers	1x5=5	Hire equipment, all CE rated and subject to <i>monthly</i> recorded equipment checks.
Climber falling due to spinning hold.	Customers	2x2=2	Training provided for route setters with regard to correct tightening of holds and new routes tested for loose holds. Despite this there will still be the occasional loose hold and climbers are warned to be aware of this by signs.
Climber falling because of hold breaking	Customers	1x3=3	There is quality control in the manufacturing of the holds to detect imperfections and route setters are given training in the correct tightening of holds to avoid breakages.
Climber falling due to misuse of hire equipment	Customers	1x5=5	Users of hire equipment must be by experienced climbers or under direct supervision.
Hold breaking or items falling from height and landing on bystander	Customers	1x4=4	The risk of a hold coming detached or breaking when in use is considered extremely low. Loose items should be removed from pockets and allen keys attached to harnesses by a 'larks foot' knot. Experienced climbers are expected to be able to make their own judgement on the wearing of helmets.

**18.3 CUSTOMER RISK ASSESSMENT – KIDS BOULDERING AREA**

Hazard Identified	Who Affected	Risk Factor	Current Procedure [residual risk]
Climber injured due to fall	Climber	2x2=4	Supervising adults must read and complete the sign in sheet. Informing them that they must be supervised at all times. Signed in climbers get an elephant stamp allowing staff to manage the area.
Climber Injured from fall from another climbing area.	Climber	1x4=4	As above. Supervising parents are informed which areas they are permitted to use.

## 18.4 CUSTOMER RISK ASSESSMENT – INSTRUCTED CLIMBERS

*Risk assessments applicable to all instructed session*

Hazard Identified	Who Affected	Risk Factor	Current Procedure [Residual Risk]
Student falling whilst bouldering	Student	3x2=6	Instructors must give students a short safety briefing before allowing them to boulder. Students should be spotted when appropriate.
Student being fallen onto	Student	1x3=3	Instructors must brief students to be aware of other climbers and young children must be kept together at all times.
Student falling whilst roped climbing	Student / Instructor	1x5=5	Instructors all have the nationally recognised Climbing Wall Award, Single Pitch Award or higher, they also have a strict set of procedures (backed up by in-house instructed sessions) that they agree to follow; these cover all aspects of roped climbing with students.
Instructor falling whilst roped climbing and belayed by a student.	Student / Instructor	1x5=5	Instructor guidelines make it clear that if an instructor needs a belay they should use another member of staff, and under no circumstances a student.
Student climbing unsupervised or going missing.	Student	1x5=5	Instructor guidelines require groups to be kept together at all times: this is particularly important with young children. Where appropriate parents / visiting staff can be used for 'ground' supervision.
Student accuses instructor of sexual interference.	Student / Instructor	1x3=3	Instructors assessed for suitability by Centre's management or Chief Instructor and where necessary references are obtained (see 'Guidelines for inducting and training instructors'.) Instructors are aware of caution to be taken when fitting harnesses to young students.
Student swinging awkwardly into wall whilst roped climbing and knocking their head	Student	1x4=4	Students should be <i>offered</i> a helmet whilst under instruction. During Intro courses, helmets are optional but the pros and cons are clearly explained so that the student can make an informed decision. Helmets are always used during lead climbing sessions.
Student / Instructor being hit by falling equipment.	Student	1x4=4	<i>Group kept at a safe distance whilst rigging. Gear loops removed from harnesses so equipment cannot unknowingly be carried up the wall.</i>
Student Injured due to being lowered too quickly	Student	1x3=3	Instructor procedures clearly state that all novice climbers should be backed up at all times.
Climbers lowering off on autobelays landing on other participants or instructors	Students / Instructors	1x2=2	All participants receive safety brief before using auto belays. Constant monitoring of area around auto belays by supervising instructor(s).
Climbers lowering off on autobelays landing on non-climbing spectators	Spectators	1x2=2	Instructors monitor the area around the auto belays. Spectators are encouraged to view from the balconies.
Climber becoming stuck e.g. because of autobelay jamming or becoming hooked up on a hold	Climbers	2x2=4	Instructor to take control of the situation and if necessary to ascend an adjacent route to offer assistance. All Instructors to receive rescue training.
Items falling out of climbers pockets	Climbers	1x4=4	Participants asked to empty pockets of all items whilst being kitted up with harness.

Items of jewellery/clothing getting hooked on holds	Climbers	2x3=6	Participants asked to remove jewellery whilst being kitted up with harness. Instructors to ensure group is suitably dressed for activity. [1x3=3]
Climber setting off with incorrectly fitted harness or incorrectly attached to autobelay/rope	Climbers	1x5=5	Strict policy of instructors ensuring every climber is properly checked before leaving the ground on each climb. Dual attachment system.
Climber setting off on route without clipping into autobelay	Climbers	1x5=5	As above, plus use of autobelay safety triangles to make this practically very difficult. Route setters are instructed to place starting foot holds behind the triangles.

#### *Additional risks for Lead Climbing Instruction*

Hazard Identified	Who Affected	Risk Factor	Current Procedure [Residual Risk]
Climber injured due to failure to clip a bolt	Climbers	1x5=5	Instructor guidelines state students must practice climbing at ground level and perform 'dummy leads' prior to lead climbing without a top rope.
Climber injured due to uncontrolled fall and becoming entangled in the rope	Customers	2x5=10	Students are instructed about how to position their body in relation to the rope whilst climbing. Belayers are guided as to where best to stand whilst lead belaying.

### 18.5 CHILD ON-SITE ACTIVITIES RISK ASSESSMENT

Hazard Identified	Who affected	Risk Factor	Current procedure / Preventative measure
A child is abused by a Beacon member of staff.	Child	1x3=3	All Centre instructing and reception staff are briefed, via instruction procedures, how to deal with children in their care. CCTV is in operation throughout most of the Centre. Criminal record self-declaration forms are filled in by all staff.
A child is abused by a visiting member of the public	Child	1x3=3	All climbing areas of the Centre are open to the general public, and are under recorded CCTV surveillance. This should be a deterrent to all would-be abusers.
A child is abused by another child	Child	1x3=3	All children in the Centre are required through our procedures to be supervised by an adult at all times, and an occasion of children being left entirely alone together should not arise. Recorded CCTV surveillance should help confirm whether or not an incident has taken place.
An allegation is made by a child against an adult or other child	Child / Instructor	1x3=3	All Beacon instructors and assistants follow procedures to help prevent the chance of a false allegation being made. Recorded CCTV surveillance should be able to confirm whether or not an incident has taken place.

## 18.6 PEOPLE WITH DISABILITIES RISK ASSESSMENT

Due to the added technical considerations encountered when instructing people with disabilities and learning difficulties within a climbing environment, a specific risk assessment is necessary to ensure the safety of the participants.

Only experienced and specifically trained instructors should manage sessions involving bespoke harness combinations or rope techniques that differ from standard 'top-rope' sessions but additional instructors may assist. Because of the additional problems that may arise, instructor to climber ratios should be seriously considered and another instructor must be available to assist in the event of any unforeseen circumstances.

Instructors should risk assess continually during each session with decisions such as:

\* Is it appropriate for all participants to wear a helmet (some people may not be able to support the extra weight, the helmet may not fit whilst in a sling or it may unduly upset some participants).

\* Carers/parents may assist with harness fitting (which may involve close personal contact), assessment of climber's psychological state, advice on normal use of personal harnesses/slings etc. Extra care should be taken to ensure the safety of helpers within the climbing area though and helmets must be worn.

Hazard Identified	Who affected	Risk Factor	Current procedure
Climber falling due to harness/sling failure	climber	1x5=5	Beacon climbing harnesses must be used in conjunction with any customer harnesses or slings, used to provide comfort only.
Entanglement in pulley/rigging system	climber	1x2=4	Consideration should be given when rigging prior to session (extend from reach) and an additional instructor must be available to assist if this event occurs.
Equipment dropped on climber whilst attaching to hoist.	climber	1x2=2	Helmets should be worn if appropriate but in any event, extreme care must be exercised when adjusting position prior to climbing.
Climber injured during collision with wall/obstructions	climber	1x2=2	Extreme care should be taken to avoid a swing when hoisting from wheelchairs and when close to obstacles (the wall). Support from another instructor during ascent and descent should be considered.
Suspension Injuries	climber	1x1=1	The likelihood of any suspension trauma is negligible due to the short period that each climber will be suspended but minor discomfort may arise and cause the climber to become upset. Instructors should be vigilant and maintain positive communication with both climber and carer/parent to assess psychological state of climber. Instructors should be aware that even non-responsive climbers are likely to understand what is said.

## 18.7 'JACOBS LADDER' RISK ASSESSMENT

Only trained instructors should run this activity and must ensure that all procedures are adhered to prior to any persons climbing.

Hazard Identified	Who affected	Risk Factor	Current procedure
Falling from height.	climber	1x5=5	All operating systems checked by Instructor in charge before climbing commences. Grigris should be used for belaying and managed appropriately.
Entanglement or entrapment	climber	1x2=4	Instructors should be observant and verbally prevent this event but must be trained and available to assist if it does occur. Excessively loose clothing should be avoided and clear briefings should be given to each climber, explaining how and when to descend safely.
Collision with belayer	belayer	1x3=3	Belayers should be positioned appropriately and attached to ground anchors.
Injury during descent from swinging/jumping or collision.	Climber / Instructor	3x2=6	Instructors must ensure that only themselves and belayers are within the climbing area and public should be kept out. Briefings should be given to prevent improper swinging by climbers. Climbers must not make progress on their own 'top-rope' and there should be no slack in the system at any time.

## 18.8 'LADDER STAND' RISK ASSESSMENT

Only trained instructors should run this activity and must ensure that all procedures are adhered to prior to any persons climbing.

Hazard Identified	Who affected	Risk Factor	Current procedure
Falling from height.	climber	1x4=4	All operating systems checked by Instructor in charge before climbing commences. Grigris should be used for belaying and managed appropriately.
Entanglement or entrapment	climber	1x1=1	Instructors should be observant and verbally prevent this event but must be trained and available to assist if it does occur. Excessively loose clothing should be avoided and clear briefings should be given to each climber, explaining how and when to descend safely.
Collision with belayer	belayer	1x2=2	Belayers should be positioned appropriately and attached to ground anchors.
Injury during collapse.	Climber / participant	4x2=8	Static rope must be used. Instructors must ensure that only they and the participants are within the climbing area which should be cordoned off. Briefings should be given. Climber must not make progress on their own 'top-rope' and there should be no slack in the system at any time. Participants should be made aware of ladder collapse dangers and helmets must be worn.

## 18.9 'THE LEAP' RISK ASSESSMENT

Only trained instructors authorised by the Centre Manager or the Chief Instructor should run this activity and must ensure that all procedures are adhered to prior to any persons climbing. Where appropriate a chest harness must be used in conjunction with a sit harness, If one member of the group requires a chest harness the whole group should wear one.

Whilst managing this activity, it is the lead instructor's responsibility to ensure that there is NO excessive slack within the system.

Hazard Identified	Who affected	Risk Factor	Current procedure
Falling from height.	climber	1x5=5	All operating systems checked by Instructor in charge before climbing commences. Grigris should be used for belaying and managed appropriately.
Entanglement or entrapment	climber	3x3=9	Instructors should be observant and verbally prevent this event but must be trained and available to assist if it does occur. Excessively loose clothing should be avoided and clear briefings should be given to each climber, explaining how and when to descend safely.
Collision with wall or other climbers	Climber/s	4x2=8	This activity should only be operated with an instructor managing the 'control rope'. A competent belayer may be used for the 'Top-Rope' if anchored and using a tied-off Grigri but the experience and judgement of the instructor in charge will dictate if another instructor is required.
Injury during decent from swinging, jumping or collision.	Climber /instructor /customer	2x3=6	Instructors must ensure that the 'pit' is clear. There should be <b>no</b> slack in the system at any time. Before the climber leaves the ground the top-rope must be clipped at half height to ensure that a fall from low down will not lead to a swing.

**18.10 'MISSION IMPOSSIBLE' RISK ASSESSMENT**

Only trained instructors should run this activity and must ensure that all procedures are adhered to prior to any persons climbing.

<b>Hazard Identified</b>	<b>Who affected</b>	<b>Risk Factor</b>	<b>Current procedure</b>
Falling from height.	climber	1x5=5	All operating systems checked by Instructor in charge before climbing commences.
Entanglement or entrapment	climber	1x2=2	Instructors should be observant and verbally prevent this event but must be trained and available to assist if it does occur. Excessively loose clothing should be avoided and clear briefings should be given to each climber, explaining how and when to descend safely.
Injury from uncontrolled descent	climber	2x4=8	Belayers should be positioned carefully and appropriately supervised. Appropriate footwear should be worn and the activity should only operate with a sufficient amount of belayers.
Injury during decent from swinging, jumping or collision.	Climber /customer	1x2=2	Instructors must ensure that nobody is within the climbing area and public should be kept clear. Briefings should be given to prevent improper swinging by climbers. Climbers must not make progress on their own 'top-rope' and there should be no slack in the system at any time.

## 18.11 'CRATE STACK' RISK ASSESSMENT

Only trained instructors should run this activity and must ensure that all procedures are adhered to prior to any persons climbing.

Hazard Identified	Who affected	Risk Factor	Current procedure
Falling from height.	climber	1x5=5	All operating systems checked by Instructor in charge before climbing commences. Grigris should be used for belaying and managed
Entanglement or entrapment	climber	1x2=4	Instructors should be observant and verbally prevent this event but must be trained and available to assist if it does occur. Excessively loose clothing should be avoided and clear briefings should be given to each climber, explaining how and when to descend safely.
Collision with belayer	belayer	1x3=3	Belayers should be positioned appropriately and attached to ground anchors.
Injury during descent from swinging/jumping or collision.	Climber / Instructor	3x2=6	Instructors must ensure that only themselves and belayers are within the climbing area and public should be kept out. Briefings should be given to prevent improper swinging by climbers. Climbers must not make progress on their own 'top-rope' and there should be no slack in the system at any time.
Struck by falling object (crate)	Belayer, Instructor, participant	3x2=6	All participants must be wearing helmets. Instructors must ensure only those participating in the activity are with in the area. Belayers should be anchored away from the immediate fall zone. When the tower of crates starts to fall the instructor can guide it on the decent by gently pushing the tower away from those on the ground.

**Related Documents:** Manufactures Literature.

Only trained instructors should manage trailer wall sessions and care should be taken to ensure that the wall is correctly positioned and that all procedures are adhered to prior to any persons climbing.

The trailer wall should be lowered if wind speeds exceed 30mph and due to slip related injuries, the instructor in charge should continually assess the weather and associated risk from rain. In the event of lightning all climbing should cease and instructors should ensure that all persons are a suitable distance away from the wall.

All supervising instructors should be trained in appropriate rescue methods prior to operating the trailer wall.

#### *Basic Risk Assessment*

Hazard Identified	Who affected	Risk Factor	Current procedure
Auto Belay Failure	climber	1x5=5	All operating systems checked daily by Instructor in charge and before climbing commences.
Entanglement or entrapment in auto belay or on wall	climber	1x2=4	Instructors should be observant and verbally prevent this event but must be trained and available to assist if it does occur. If helmets are worn, instructors must be aware of strangulation risk and trained. Excessively loose clothing should be avoided and clear briefings should be given to each climber, explaining how and when to descend safely.
Personal Equipment Failure or incorrectly fitted harness	climber	1x5=6	All operating staff should be fully trained and each persons harness should be checked before every single climb. Instructors are responsible for checking that each climber is connected to auto belay on every climb.
Injury during descent from swinging/jumping or collision.	Climber / Instructor	2x5=7	The climbing area should be cordoned off appropriately to ensure that climbers will not land on barrier (2.5m away from wall) and extreme care should be taken by instructors to ensure that only themselves and climbers are within the climbing area. All climbers should be kept clear of landing zones when on the ground and Instructors should be aware that they are at most risk in this environment. Continual briefings should be given to prevent improper swinging by climbers.
Climber injury due to collision with trailer jacks.	Climber	1x2=3	Trailer jacks should be padded if side auto belays are used. Trublues should only be used on front of wall due to faster descent rate.

**TO PREVENT ACCIDENTAL LOWERING OF WALL DURING USE REMOTE CONTROL MUST BE REMOVED AND PLACED IN VAN PRIOR TO ANY CLIMBING.**

*Detailed Risk Assessment*
**Climbing Areas**

Hazard Identified	Who affected	Risk Factor	Current procedure
Fall from height whilst partaking in activity.	Participant	5x1=5	<ul style="list-style-type: none"> <li>Participants must be securely attached with approved equipment throughout participation in the activity.</li> <li>All equipment used to meet UIAA standards and have been inspected by a competent person prior to use.</li> <li>Activity only to commence once instructor has given permission.</li> </ul>
Fall from height whilst working at height.	Personnel working at height	5x1=5	<ul style="list-style-type: none"> <li>Is any work at height required? No working at height should be required.</li> <li>Carry out any work possible on the ground first. Lower the wall to ground level if necessary.</li> <li>Correct use of access equipment by qualified personnel.</li> <li>Only competent personnel to work at height.</li> <li>Condition of equipment used for work at height checked periodically.</li> <li>Personnel attached at all times when working at height.</li> </ul>
Falling objects	All personnel	1x3=3	<ul style="list-style-type: none"> <li>Participants to remove potential objects from pockets prior to participation in activity.</li> <li>Staff briefed to report any possible hazards that could become potential falling objects.</li> <li>3.4m Exclusion Zones around activity area.</li> </ul>
Suspension trauma	Injured personnel	1x4=4	<ul style="list-style-type: none"> <li>No prolonged periods spent suspended in a harness should be experienced at any point during the activity.</li> <li>Rescue attempt to take no more than 5min before the emergency services are called.</li> <li>Rescue personnel briefed to be aware of suspension trauma.</li> </ul>
Failure of safety attachments.	Participant	1x5=5	<ul style="list-style-type: none"> <li>All attachments / equipment to be inspected before use.</li> <li>All attachments to meet standards set out in BS 12572:2007 Code of practice for Artificial Climbing Structures.</li> <li>Weight restrictions in place.</li> <li>All cables checked on a daily basis before use by Technical Services for wear, frays and kinks. All cables and other wear items to be replaced as required plus annual service and check.</li> </ul>
Equipment Failure	Participant	1x5=5	<ul style="list-style-type: none"> <li>All Equipment to be checked prior to use, by a suitably competent individual.</li> <li>Any suspected faulty equipment will not be used, will be clearly labelled as defective and will be removed immediately from the activity stance.</li> <li>All equipment used to meet UIAA standards.</li> </ul>

Climbing Wall failure	All personnel	1x5=5	<ul style="list-style-type: none"> <li>Ensure climbing wall and all associated equipment has passed all mandatory safety checks prior to the day of the activity.</li> <li>Follow manufacturer's instructions for use.</li> <li>Wall erected by competent personnel.</li> <li>Structures to be inspected prior to the activity by a suitably qualified person.</li> <li>Weight tested before activity begins</li> <li>Whole system checked and primed by Technical Services prior to operating. Pressure should be between 85-95psi.</li> </ul>
Unintentional lower of wall	All personnel	1x5=5	<ul style="list-style-type: none"> <li>Remote control device is stored separately and never left unattended whilst attached to wall.</li> </ul>
Tangled safety rope	Participant	3x3=9	<ul style="list-style-type: none"> <li>Auto Belay system controls the slack during climb and descent.</li> <li>Pre-opening check to confirm correct functioning before use including sheave block and bolt integrity.</li> <li>Staff trained to check for tension on cable before each climber begins climb.</li> </ul>
PPE not fitted correctly	Participant	2x5=10	<ul style="list-style-type: none"> <li>All equipment to be fitted by a competent member of staff</li> <li>Equipment to be visually checked by instructor prior to activity commencing.</li> </ul>
Safety equipment incorrectly attached	Participant	2x5=10	<ul style="list-style-type: none"> <li>All equipment to be attached by instructor prior to activity commencing.</li> </ul>
Hair, clothing or jewellery trapped in equipment	Participant	3x2=6	<ul style="list-style-type: none"> <li>Participants to be briefed and visually checked by instructor prior to involvement in activity.</li> <li>Participants instructed to tuck away loose clothing and long hair prior to activity.</li> <li>Participants to remove jewellery prior to activity.</li> <li>Instructors correctly trained and briefed on how to deal with incidents should they occur.</li> </ul>
Inversion	Participant	2x4=8	<ul style="list-style-type: none"> <li>Instructor to brief participants on how to avoid inversion</li> <li>Instructor to monitor the participant as they climb/descend.</li> <li>Instructor to ensure participants harness is fitted correctly</li> </ul>
Spinning holds	Participant	3x1=3	<ul style="list-style-type: none"> <li>Staff to be vigilant to possible risks.</li> <li>Staff to tighten where necessary any spinning holds.</li> <li>All hand holds checked and tightened by Technical Services prior to opening.</li> </ul>
Stuck Climber	Participant	5x1=1	<ul style="list-style-type: none"> <li>Participants correctly briefed prior to participation in activity.</li> <li>Staff well briefed and experienced to deal with incidents as they occur.</li> </ul>
Climber exceeding recommended height	Participant	3x1=3	<ul style="list-style-type: none"> <li>All climbers are supervised and coached by second member of staff</li> <li>Staff well briefed in operating procedures.</li> </ul>
Injury during ascent/descent	Participant	2x1=2	<ul style="list-style-type: none"> <li>All climbers are briefed by trained staff before climb commences</li> </ul>

			<ul style="list-style-type: none"> <li>Auto Belay will control speed of decent.</li> <li>Each auto-belay to be primed before opening.</li> </ul>
Improper behaviour	Participant / Staff	3x1=3	<ul style="list-style-type: none"> <li>All climbers briefed by harness team and supervised while climbing</li> <li>Staff well trained and briefed to remove those behaving inappropriately from the activity.</li> </ul>
Climber landing on individual on descent	Participant / Staff	2x2=4	<ul style="list-style-type: none"> <li>Cordon erected to protect landing area.</li> <li>Excluding harnessing staff only four people are allowed within this area at a time, one per climbing line.</li> </ul>
Collision with neighbouring objects	Participant	1x4=4	<ul style="list-style-type: none"> <li>Cordon erected minimum of 3.4m from the wall face in accordance with ADIPS report.</li> <li>Padding fitted where required to neighbouring objects.</li> </ul>
Slips Trips and Falls	Participant / Staff	4x1=4	<ul style="list-style-type: none"> <li>All persons using the wall should wear closed toe footwear that is securely fastened to the foot.</li> <li>Staff trained and briefed to adopt good housekeeping practice.</li> <li>Operation monitored during wet weather/adverse weather and activity ceased if necessary.</li> </ul>
Failure to use control measures	All personnel	1x5=5	<ul style="list-style-type: none"> <li>All staff manning event to receive comprehensive safety brief, including detail of control measures to be employed prior to event commencement</li> </ul>
Striking of wall from vehicles	All personnel	1x5=5	<ul style="list-style-type: none"> <li>Exclusion Zone to be established</li> <li>Staff to be vigilant.</li> </ul>
Increased Wind	All personnel	3x2=6	<ul style="list-style-type: none"> <li>Staff to monitor conditions</li> <li>Wall to be lowered if winds greater than 25mph. From Beaufort Scale: Anything greater than "small trees swaying" activity is to be ceased.</li> <li>Use of guide rope to prevent descent issues</li> </ul>
Fire	All personnel	2x5=10	<ul style="list-style-type: none"> <li>Staff to remain vigilant for Fire.</li> <li>Fire provision made and to practice good housekeeping.</li> <li>Staff well briefed as to the emergency procedure in place by Event operator</li> </ul>
Fatigue of instructors	All	2x5=10	<ul style="list-style-type: none"> <li>Driving hours and instructors hours to comply with European working time directives.</li> <li>All staff to have a half hour break when working for a period of greater than 6 hours.</li> <li>Driver hours to be shared between qualified persons.</li> </ul>

### Towing

Hazard Identified	Who affected	Risk Factor	Current procedure
Trailer becoming unsafe while towing	Staff, Public	1x5=5	<ul style="list-style-type: none"> <li>Towing can only be carried out by employees authorised to use company vehicle and trained on how to correctly attach and tow trailer.</li> </ul>

Trailer becoming free while towing	Staff, Public	1x5=5	<ul style="list-style-type: none"> <li>Tow hitch locking mechanism engaged during transport.</li> <li>Automatic breaking mechanism incorporated should trailer become detached from vehicle.</li> <li>Check the fixtures and fittings prior to use to include straps and hydraulic valves.</li> </ul>
Wall raising while in transit	Staff, Public	1x4=4	<ul style="list-style-type: none"> <li>Climbing wall secured to trailer by a strap and hydraulic rams.</li> </ul>
Risk of trailer being affected by High Wind	Staff, Public	1x5=5	<ul style="list-style-type: none"> <li>Wind speed monitored.</li> <li>Driver trained and aware of how vehicle and tow handle in high winds.</li> </ul>
Route Choice whilst towing	Staff, Public	1x2=2	<ul style="list-style-type: none"> <li>Take advice for route choice to avoid potential highway restrictions from persons with local knowledge.</li> </ul>

### Erecting the Wall

Hazard Identified	Who affected	Risk Factor	Current procedure
Overhead Cables	Staff, Public	1x3=3	<ul style="list-style-type: none"> <li>Visually check for any overhead wires or cables before erecting wall.</li> </ul>
Wall sinking into soft surface	Staff, Public	1x5=5	<ul style="list-style-type: none"> <li>When erecting on a soft surface use a wooden base under wall and jacks.</li> </ul>
Injury while sitting	Staff, Public	1x4=4	<ul style="list-style-type: none"> <li>Wall will only be positioned when there are no members of the public in the immediate vicinity.</li> </ul>
Risk of wall toppling	Staff, Public	1x5=5	<ul style="list-style-type: none"> <li>Staff trained through manufacturer on how to position and erect wall correctly with use of extendable jacks.</li> <li>Staff trained on ground level tolerances.</li> </ul>
Injury during set up	Staff, Public	1x4=4	<ul style="list-style-type: none"> <li>All staff involved during set up must be competent to do so and public are to be kept well back.</li> </ul>
Risk of injury while raising wall	Staff, Public	1x4=4	<ul style="list-style-type: none"> <li>Remote control device is stored separately and never left unattended whilst attached to wall.</li> </ul>

### Lowering the wall

Hazard Identified	Who affected	Risk Factor	Current procedure
Injury while removing	Staff, Public	1x4=4	<ul style="list-style-type: none"> <li>Wall will only be lowered when there are no members of the public in the immediate vicinity</li> </ul>
Injury lowering the wall	Staff, Public	1x4=4	<ul style="list-style-type: none"> <li>All staff involved must be supervised by a person who has received training from the manufacturer</li> </ul>
Risk of injury while lowering wall	Staff, Public	1x4=4	<ul style="list-style-type: none"> <li>Remote control device is stored separately and never left unattended whilst attached to wall.</li> </ul>

## 18.13 ROUTE SETTING RISK ASSESSMENT

Hazard Identified	Who affected	Risk Factor	Current procedure / Preventative measure
Dropping allen key or other equipment.	Anyone under the route setter.	5x3= 15	All equipment attached to setter via lanyards larks footed to harness. Area below setter cordoned off. Hard hats available for anyone entering cordoned off area.
Dropping bolts / holds	Anyone under the route setter.	5x4= 20	All bolts and holds to be carried in specially designed bags. Training to include ways to avoid dropping items. Area below setter cordoned off. Hard hats available for anyone entering cordoned off area.
Equipment failure causing route setter to fall.	Route setter + anyone under the route setter.	1x5= 5	All equipment CE marked, logged by Big Rock and subject to weekly checks in accordance with the Big Rock equipment checks procedures. Back-up system used on second rope at all times.
Fall due to route setter error.	Route setter + anyone under the route setter.	1x5= 5	All route setters trained in accordance with Big Rock route setting procedures and monitored to ensure compliance with these procedures.
Route setter stuck on wall due to an accident.	Route setter	1x5= 5	Route setting only permissible when another fully trained route setter is on the premises. Route setting training includes the rescue of a stranded route setter.
Hold spinning after route setter finished.	Customer	2x1= 2	Route setting procedures and training includes the correct tightening of holds to avoid subsequent spinning. All new routes tested by a member of staff before allowing other climbers on them.
Hold breaking after route setter finished.	Customer	1x2= 2	Route setting procedures and training includes the correct tightening of holds to avoid subsequent breaking. All new routes tested by a member of staff before allowing other climbers on them.
Repetitive strain injury	Route setter	1x1=1	Route setters encouraged to 'warm up' before working and are given training in proper positioning to avoid over-stretching whilst tightening holds.

18.14 BOULDER PROBLEM  
 SETTING RISK ASSESSMENT

Hazard Identified	Who affected	Risk Factor	Current procedure / Preventative measure
Falling from ladder whilst boulder problem setting	setter	2x3=6	Problem setters given advice and training in correct use of ladders in bouldering areas. Problem setting takes place up to a maximum of 2m height. Setting occurs over areas with impact absorbing flooring. Area under ladders should be kept free of holds and other obstacles.
Injured boulder problem setter alone in centre	setter	1x4=5	Boulder problem setting only to take place when there is a second member of staff on duty.
Hold spinning after problem setter finished.	Customer	2x1=2	Route setting procedures and training includes the correct tightening of holds to avoid subsequent spinning. All new problems tested by a member of staff before allowing other climbers on them.
Hold breaking after route setter finished.	Customer	1x2=2	Route setting procedures and training includes the correct tightening of holds to avoid subsequent breaking. All new problems tested by a member of staff before allowing other climbers on them.
Repetitive strain injury	setter	1x1=1	Route setters encouraged to 'warm up' before working and are given training in proper positioning to avoid over-stretching whilst tightening holds.

18.15 LADDER USE RISK  
 ASSESSMENT

Hazard Identified	Who affected	Risk Factor	Current procedure / Preventative measure
Fall from ladder	Ladder user, anyone in fall area.	2x3=6	Ladder users given advice and training in correct use of ladders. Ladder use up to a maximum of 2m height without a second attachment point. Most route/boulder problem setting occurs over areas with impact absorbing flooring, reducing the likelihood of injury. Area under ladders to be kept free of holds and other obstacles. Use of second point of attachment (e.g.catch) where available.
Ladder incorrectly set up	Ladder user	2x3=6	All Ladder users given advice and training in correct use of ladders, particularly setting ladders on soft surfaces. Set-up guidance/instructions on ladders.
Ladder failure	Ladder user	1x3=3	All ladders to conform to EN131 and BS 2037 Class 1 'industrial'. Condition of ladders inspected weekly, with a written record kept. User training to ensure ladders used within manufacturers guidelines.

## 18.16 SCAFFOLD TOWER USE RISK ASSESSMENT

All staff wishing to use a Scaffold tower should read and understand the HSE document CIS10 (Scaffold Tower Use) and the manufactures guidelines prior to commencing any work.

Hazard Identified	Who affected	Risk Factor	Current procedure / Preventative measure
Fall from height	Tower user, anyone in fall area.	2x3=6	<ul style="list-style-type: none"> <li>• Consider whether a harness is required, depending on task, height etc.</li> <li>• Identify safe systems of work for completing this task and communicate to appropriate staff.</li> <li>• All access equipment is suitable for purpose, and checked before use.</li> <li>• Environment to be clear of obstacles with even surface as base for access equipment.</li> <li>• Area checked for overhead hazards.</li> <li>• Company of Hire provide certificate of safe working condition.</li> <li>• Procedures are in place for damaged access equipment to be removed immediately and further use prohibited</li> <li>• Adequate and appropriate signs are in place to warn of the hazards below work area. Supervision from the ground may be required.</li> <li>• Ground level area where access route is located is cordoned off to prevent contact with any persons who may be on the premises.</li> <li>• Access equipment is restricted to those who have been trained in it's safe use, (including erection and dismantling of access tower scaffolds)</li> <li>• Access equipment removed when not in use to prevent unauthorised use.</li> <li>• Appropriate training is given to staff</li> <li>• Appropriate footwear is worn so that a safe grip is maintained.</li> <li>• Accompanying tools and equipment carried on person are stored in tool belts or secured appropriately.</li> <li>• Items are lifted using the appropriate equipment and associated safe system of work</li> <li>• Battery powered tools only used when working at height.</li> <li>• Mobile access tower scaffolds to be stored safely to prevent unauthorised use.</li> <li>• Lone working not to be permitted.</li> <li>• Staff are trained in the use of personal protective equipment which is readily available and appropriate to the task</li> <li>• Where persons have pre-existing medical conditions or other factors which may affect their ability to undertake these</li> </ul>

			tasks a separate risk assessment has been undertaken.
Incorrect set up	Tower user	2x3=6	All users given advice and training in correct use of scaffold towers, particularly siting towers on soft surfaces. Set-up guidance/instructions on scaffold towers.
Tower failure	Tower user	1x3=3	All towers conform to current guidelines and hired only from reputable merchants who undertake an inspection prior to rental.

**18.17 FIRE RISK ASSESSMENT**

Big Rock Climbing recognises the importance of fire safety in the commercial sector and has had a Fire Risk Assessment performed by Thames Valley Fire. This Document is stored in the Front office and reviewed annually by the centre Manager. All staff should make a point of reading it and commenting on it within a week of training sessions.