

SUBJECT: Continuous Belay

RISK ASSESSMENT REF: CB 04/2024/V2

WRITTEN BY: Operations Team/Health and Safety Team

		Risk Matrix						
Risk rating guidance	Likelihood (L)	5	5	10	15	20	25	Likelihood (L) x Severity (S) = Risk Rating (RR).
		4	4	8	12	16	20	
		3	3	6	9	12	15	
		2	2	4	6	8	10	
		1	1	2	3	4	5	
				1	2	3	4	
		Severity (S)						
Acceptability of risk guidance	<b>High-risk: 15 – 25</b>		High-risk activities should cease immediately. Further effective control measures to mitigate risks must be introduced.					
	<b>Medium-risk: 8 – 12</b>		Medium-risks are an acceptable level based on the reduced likelihood after sufficient control measures are implemented					
	<b>Low-risk: 1-6</b>		Low-risks are largely acceptable. Where it is reasonable to do so, efforts should be made to reduce risks further.					
Guidance. When completing a risk assessment, you should:	<ol style="list-style-type: none"> <li>Identify the persons at risk and the significant hazards.</li> <li>Calculate an initial RR for the activity.</li> <li>Identify risk control measures that reduce the risks to an acceptable level.</li> <li>Calculate a revised RR - you should consider how much safer the task will be if the control measures are followed. Here, you should consider changing both the likelihood (L) and the severity (S) ratings.</li> </ol>							
<b>Note.</b> Ideally, you should look to reduce the risks so that the task can be classified as "low-risk".								

Likelihood	Definition	Points rating
<b>Inevitable</b>	If the work continues as it is, there is almost 100% certainty that an accident will happen, for examples: A broken stair or broken rung on a ladder, Bare, exposed electrical conductors, Unstable stacks of heavy boxes	<b>5</b>
<b>Highly likely</b>	Will happen more often than not. Additional factors could precipitate an incident but it is still likely to happen without this additional factor.	<b>4</b>
<b>Possible</b>	The accident may occur if additional factors precipitate it, but it is unlikely to happen without them.	<b>3</b>
<b>Unlikely</b>	This incident or illness might occur but the probability is low and the risk minimal.	<b>2</b>
<b>Remote possibility</b>	There is really no risk present. Only under freak conditions could there be any possibility of an accident or illness. All reasonable precautions have been taken - This should be the normal state of the workplace.	<b>1</b>

Severity	Definition	Points rating
<b>Very high</b>	Causing multiple deaths and widespread destruction eg. fire, course/building collapse.	<b>5</b>
<b>High</b>	Causing death, serious injury or permanent disability to an individual.	<b>4</b>
<b>Moderate</b>	Temporary disability causing injury (to member of the public, contractor or employees) or disease capable of keeping an employee off work for seven days or more and reportable under RIDDOR (Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995).	<b>3</b>
<b>Slight</b>	Minor injury (to member of the public, contractor or employee), which would allow the individual to continue work after first aid treatment on site or at a local surgery. The duration of the stoppage or treatment is such that the normal flow of work is not seriously interrupted.	<b>2</b>
<b>Nil</b>	Very minor injury, bruise, graze, no risk of disease.	<b>1</b>

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Risk Assessment for Adventure Forest Ltd T/as Go Ape! &/or Go Ape! EOT



This Risk Assessment covers all Treetop Adventure and Treetop Adventure Plus Courses, as well as Treetop Challenge Courses that operate on a continuous belay safety system.

HAZARD	L	S	RR	WHO MIGHT BE HARMED	CONTROL MEASURES	FURTHER CONTROL MEASURES: Reviewed annually to formulate Risk Reduction Plan	L	S	RR
<p>Falling to the ground, onto another person, onto another part of the course or another object due to:</p> <p>Deliberately removing equipment or unclipping from the safety system then slipping, jumping or falling, either unintentionally or intentionally</p> <p>Being attached on to the safety cable (system) incorrectly</p> <p>Failure of part of the course infrastructure</p> <p>PPE failure, incorrect selection, use, fitting, customer adjusting their own equipment etc</p> <p>Tree/Pole/support structure failure, falling over or onto the course, etc</p> <p>Slips and trips This could happen whilst opening or closing the course, operating the course, participating on the course,</p>	4	4	16	<p>Employees Course Users Contractors Onlookers Trespassers</p>	<ul style="list-style-type: none"> <li>Continuous Belay Safety System does not require course users to remove their trolley at any point. On vertical activities and Tarzan Swings Switches ensure the continuity of the continuous lifeline.</li> <li>Course Users to have additional safety lines as a back up to the Continuous Belay system (this does not include courses using the Saferoller safety system as this will only operate with a single adjustable safety line)</li> <li>For Saferoller where there are adjustable lines, landing site is set up to facilitate, both maximum and minimum lengths. Along with Instructor check points. During Briefing, customers are told not to adjust safety line.</li> <li>Instructors to supervise customers attaching to safety system on the ground (exception Bedgebury, Moors Valley Black Park Loop 6 &amp; Chessington Site5)</li> <li>On Treetop Adventure Courses minimum height of 1m wearing footwear to enable users to move their safety line around the safety system. Height markers installed. Instructors carry out checks.</li> <li>Under 6 year olds to be accompanied by an adult (1:2) to assist with safety lines.</li> <li>On Treetop Adventure Plus Courses minimum height 1m 20.</li> <li>On Continuous Belay Treetop Challenge Courses minimum height 1m 40.</li> <li>Maximum weight due to load limits of course are provided via manufacturers guidance. Scales provided at sites. Information provided to customers on booking confirmation documents, RAD and website.</li> <li>Anyone deemed to be under the influence of alcohol or drugs is not permitted access onto the course.</li> <li>Anyone who does not have the correct footwear (e.g. sandals) or clothing that may lead to a slip or a trip will not be allowed onto the course.</li> </ul>		2	4	8

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<p>carrying out inspections or carrying out a rescue.</p>					<ul style="list-style-type: none"> <li>• Instructors will access the course using the standard Go Ape Self Belay Safety Lines and system of use (see self-belay risk assessment).</li> <li>• Saferoller sites, instructors will use the adjustable safety line as part of the self-belay kit.</li> <li>• Only trained and assessed instructors will be allowed to supervise the Continuous Belay Courses.</li> <li>• Instructors to be trained and assessed in moving customers on the Continuous Belay course.</li> </ul>				
					<p><b>Training</b></p> <ul style="list-style-type: none"> <li>• A Training Manual (TM) with a Training and Assessment Policy and accompanying presentations (some including film) are maintained and up to date.</li> <li>• Instructors will be trained in accordance with the training manual. This will include demonstration, monitoring and scenario training with has been recorded on their training log.</li> <li>• Instructors must be competent at delivering the audio Safety Brief to course participants in order to be able to do so. There will be a backup for technical failures.</li> <li>• A Rescue Policy, Rescue Training and Rescue Procedures document is maintained detailing rescue procedures, training requirements, equipment and checks that are to be carried out.</li> <li>• A minimum of one qualified rescue trained person (Manager or Instructor) is available whenever there is anyone (employee or course user) at height. A rescue bag is available, maintained with the correct equipment and checked regularly.</li> <li>• During initial training of instructors ascending zip wires, brake lines are used.</li> <li>• Duty Managers undergo further training to ensure they are competent to operate the course when the Commercial Site Manager is not at site.</li> </ul>				
					<p><b>Course Design, Inspections and Checks</b></p> <ul style="list-style-type: none"> <li>• Courses are designed and constructed in compliance with EN Standard, including choice of materials, loads, support systems, marking, inspection and</li> </ul>				

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					<p>maintenance and documentation. Inaugural and annual inspection check.</p> <ul style="list-style-type: none"> <li>• Where participants access the course unsupervised, the course is designed so that there is a stockade or tower surrounding the points of access e.g., access ladders, towers, fishermen’s traps, with a secure coded door lock and self-closing hinges so that an onlooker/unauthorised person cannot access the course (without wearing the appropriate PPE and having received instruction)</li> <li>• Where course access is supervised by a trained instructor, points of access have secure doors that can be closed/secured when not attended.</li> <li>• Pre-use course checks are carried out by instructors to ensure the course is safe to use.</li> <li>• Opening checks carried out in line with the Opening Checks Policy. Additional guidance given in Hazards caused by cold weather and Damage to Course Policy</li> <li>• Periodic site operational checks are carried out and recorded by a competent person (Type C).</li> <li>• Servicing and maintenance as advised by the manufacturer (eg switches, quickflight, stopfalls)</li> <li>• Inaugural inspections by an appropriately qualified Type A inspection body.</li> <li>• Annual periodical inspection of the course by a competent person</li> <li>• Records of inspections and examinations, maintenance, testing and certificates of conformity are maintained.</li> <li>• Following high winds, snow and lighting the course will be checked thoroughly for any damage, initially from the ground and then on the course, prior to opening the course to participants.</li> </ul>			
					<p><b>PPE Provision and Checks</b></p> <ul style="list-style-type: none"> <li>• Effective procurement and management system, using reputable suppliers to ensure all PPE is of the correct standard (CE or UKCA marked, etc) and design and has correct information provided for use and is therefore safe and appropriate for its intended use.</li> <li>• PPE to be assembled correctly, and correct procedures</li> </ul>			

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					<p>are documented.</p> <ul style="list-style-type: none"> <li>• Each site will have a minimum of one competent person trained in PPE inspection. Instructors are trained internally in pre and post use checks.</li> <li>• PPE will be checked prior to first use (from the manufacturer)</li> <li>• PPE is visually checked prior to and after each use. (On Saferoller courses the Trolley gaps checked using the gauge after every use)</li> <li>• PPE examinations are carried out and recorded by a competent person in accordance with EN standards.</li> <li>• Where PPE is identified as being defective it is placed in the quarantine box.</li> <li>• PPE is to be stored in a dry, clean area, away from any chemicals.</li> <li>• PPE must be cleaned and dried as detailed in the manufacturer’s guidelines</li> <li>• All PPE is documented and logged, including inspection and maintenance records.</li> <li>• Instructors are trained in the correct fitting of PPE, its operation and its operating limits, inspection of the PPE and record the training.</li> <li>• A selection of equipment is break tested as required to gather information.</li> <li>• Trained instructors check course participants’ harnesses are fitted correctly before participating in the activity.</li> <li>• Patrolling instructors carry out visual checks of course users to ensure that PPE remains fitted correctly.</li> <li>• Different types of harness are used for the Continuous Belay Courses to fit people of different shapes and sizes.</li> <li>• Personal PPE must not be used.</li> <li>• Helmets are worn for all construction work, rescue training and during rescues. When moving off the normal customer route to carry out inspections, maintenance and repairs (to mitigate a fall or objects falling onto the rescue participants and workers).</li> <li>• Builders and contractors using their own PPE are responsible for ensuring it is fit for use.</li> <li>• Mallions on sit harnesses are tightened with a spanner so they cannot be undone by hand.</li> </ul>			
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						<ul style="list-style-type: none"> <li>No smoking or vaping whilst wearing PPE</li> <li>When using chemicals, only PPE for use with the task to be worn.</li> </ul>				
						<p><b>Operation Systems and Controls of the Course</b></p> <ul style="list-style-type: none"> <li>When the course is “closed” or left unmanned access will be secured.</li> <li>In lightning, high winds, heavy ice and snow, the course is evacuated and closed.</li> <li>First aid supplies are available and there is at least one First Aid qualified member of staff on duty each day.</li> <li>Emergency course evacuation procedure in place for each course.</li> <li>Whilst on the course, the use of mobile phones as telephones is not permitted.</li> <li>Course points of access have secure doors that can be closed when not attended.</li> <li>Instructors patrol the course regularly and are available to assist course users where necessary.</li> <li>Tarzan assists and Alpine Zip assists are completed from the ground rather than by accessing the course wherever possible. All customer assists are initially from the ground, then the platform, prior to rescuing from obstacles, unless an instructor is already at height.</li> <li>Lone Working Radio Procedures during opening and closing of the course so instructors locations are known.</li> <li>Where required, whistles are supplied on harnesses to allow customers to alert instructors of a problem.</li> </ul>				
						<p><b>Trees/Poles/Support Structures</b></p> <ul style="list-style-type: none"> <li>Prior to a new course opening all trees that form part of the course are inspected for stability and disease by a qualified arboriculture expert.</li> <li>An Arboricultural periodical inspection is completed by the Senior Tree Officer and is to be carried out at least once per calendar year and within a maximum interval of 15 months.</li> <li>System for monitoring trees where a potential problem has been identified.</li> <li>Measures are taken to protect tree roots from</li> </ul>				

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						compaction. <ul style="list-style-type: none"> <li>• Poles and Support Structures designed and installed to relevant guidance. Included in Operational and Periodical Inspections.</li> </ul>				
Falling objects	3	3	9			<b>Retainers and Lanyards</b> <ul style="list-style-type: none"> <li>• Course users must attach or secure all loose items (such as cameras).</li> <li>• Mobile phones can be used to take photographs but should be secured to the user to prevent them falling. Cameras should be secured. Lanyards available.</li> <li>• When instructors are carrying out maintenance tasks at height, reasonable adjustments must be made</li> </ul> <b>Trees</b> <ul style="list-style-type: none"> <li>• All course trees visually checked during opening the course, for loose and broken branches. Deadwood should be removed.</li> </ul>	Note: Battersea is directly above a children’s playground and mini golf course – therefore camera’s and phones currently not permitted unless attached to specific equipment, provided by site.  A job specific short risk assessment must be undertaken	2	3	6
Impact including:  Course users swinging into something solid <ul style="list-style-type: none"> <li>• On the course</li> <li>• At the landing (e.g. resulting in lower leg injury)</li> <li>• Being struck by parts of the course</li> </ul> Collision <ul style="list-style-type: none"> <li>• On Zip Wires</li> <li>• At Zip landing</li> </ul>	3	3	9			<b>Course design</b> <ul style="list-style-type: none"> <li>• Design of the course must take into consideration the possibility of impact problems. Materials are finished to provide smooth, surfaces. Zip Wires and landing areas are designed and installed to arrive at an optimum landing speed.</li> <li>• Landing sites are constructed to provide a soft surface of woodchip, wood peel or foam padding.</li> <li>• Tree to tree zip landing platforms installed suitable for the speed and angle of these zips</li> <li>• Protective padding is provided where there is the possibility of collision. The zip braking spring is covered in rubber or foam protection.</li> <li>• Where applicable; Zip landing sites are fenced to discourage members of the public and children wandering into them.</li> <li>• Warning signs are in place to warn members of the public of the risk of collision.</li> </ul> <b>Operating Procedures</b> <ul style="list-style-type: none"> <li>• Landing areas are prepared (raked or dug) on a regular basis.</li> <li>• Only 1 course participant is allowed on the zip wire</li> </ul>		2	3	6

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						<p>at any one time.</p> <ul style="list-style-type: none"> <li>On the Treetop Adventure course, if the instructor at the zip wire departure platform leaves their position whilst the course is in operation they must attach the zip stops rope to prevent customers descending the zip wire.</li> </ul> <p><b>Provision of Information</b></p> <ul style="list-style-type: none"> <li>Safety Brief (video, audio or verbal) given to all course participants. Different versions dependant on activity and safety system.</li> </ul>				
Head impact on metal arms at end of activities	3	3	9			<ul style="list-style-type: none"> <li>Padding to be added to arms to draw attention to their position and provide protection.</li> <li>On Treetop Adventure courses handrails designed so that the safety cable doesn't need to drop in height to pass under them and the need for customers to duck under them</li> </ul>		2	3	6
Entanglement in ropes nets, cables or chains and body parts trapped in moving parts of the course	2	3	6			<p><b>Course Design</b></p> <ul style="list-style-type: none"> <li>Activities designed to minimise the risk of entanglement or entrapment.</li> </ul> <p><b>Operating Procedures</b></p> <ul style="list-style-type: none"> <li>Safety brief (video, audio or Verbal)</li> <li>Long hair tied up (included in Safety Rules)</li> </ul>		1	3	3
Unauthorised Users	2	3	6			<p><b>Course</b></p> <p>Access to be</p> <ul style="list-style-type: none"> <li>Secured overnight</li> <li>Secured when the course is unattended during the day</li> <li>Infrastructure to be installed on the ground to control access.</li> </ul> <p><b>Brief Site &amp; Low Level Activities</b></p> <p>The site may be accessed by non-authorized users at any time either during opening hours or when closed.</p> <ul style="list-style-type: none"> <li>To be built low to the ground</li> <li>Surrounding area to be cleared of hazards in the event of a fall</li> <li>Surface to be covered with wood peel to provide a fall surface</li> </ul>		1	3	3
<p>Clothing &amp; Jewellery</p> <ul style="list-style-type: none"> <li>Footwear</li> <li>Covered waists</li> </ul>	3	3	9	<p>Course users</p> <p>Employees</p> <p>Contractors</p>	<ul style="list-style-type: none"> <li>Prohibit sandals, waist must be covered, no hoop earrings, necklaces tucked away.</li> <li>Instructor check</li> </ul>		1	3	3	

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						<ul style="list-style-type: none"> <li>• Written Safety Rules and Advice</li> </ul>				
Darkness and inadequate lighting	2	3	6	Course users Employees Contractors	<ul style="list-style-type: none"> <li>• Closure of course</li> <li>• Careful planning of session availability</li> <li>• Provision of sufficient, well sited, and effective lighting</li> <li>• Adequate supervision</li> <li>• Staff assistance</li> </ul>		1	3	3	
Inclement Weather	3	3	9	Course users Employees Contractors	<ul style="list-style-type: none"> <li>• Course closure for lightning, high winds, heavy ice, and snow. Duty Manager guidelines on cold weather. GAD</li> <li>• Evacuation Plans</li> <li>• Suitable clothing</li> <li>• Communications and use of radios</li> <li>• Rest periods</li> <li>• Training</li> <li>• Staff breaks</li> <li>• Consultation with weather experts</li> <li>• Consultation with tree expert</li> <li>• Inspection policy following inclement weather</li> <li>• Patrolling instructors' observations (Beaufort Wind Scale)</li> <li>• Provision of water</li> </ul>		1	3	3	
Medical conditions	2	2	4	Course users Employees	<ul style="list-style-type: none"> <li>• Medical and Disability Policies and Pregnancy Policy</li> <li>• Disclaimers self-certification</li> <li>• Pregnancy self-certification</li> <li>• Terms and Conditions</li> <li>• Staff training</li> <li>• Written/digital Safety Rules and Advice</li> <li>• Systematic assessment of risk</li> <li>• Dynamic assessment of risk</li> <li>• Patrolling</li> <li>• Users advised to seek medical advice</li> </ul>		1	2	2	
Rowdy Groups	2	3	6	Course Users	<ul style="list-style-type: none"> <li>• Exclusion from course</li> <li>• Written/digital Safety Rules and Advice</li> <li>• Terms and Conditions</li> <li>• Patrolling</li> <li>• Verbal red/yellow warning</li> </ul>		1	3	3	

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Refs	<p>HSW Act 1974, MHSW regs amend 1999, WAH regs 2005, PUWER 1998, LOLER 1998, PPE regs 1992, Workplace HSW regs 1992, H&amp;S (Safety Signs) regs 1996, First Aid regs 1981, Occupiers Liability Act 1984, EN 15567 – 2015+A1 2020 (Construction and safety requirements) and EN 15567-2:2015 (Operation requirements),                  GAD = Go Ape documents, Setting up additional lines for Treetop Adventure harnesses. Course Evacuation Procedures</p>
	<p><b>Note 1: Control Measures</b> - Where a control measure has been identified, it is only included once and not repeated under every serial number. Therefore, for a specific hazard identified, a control measure in a serial above may apply to that hazard. (HSE RA guidance.)</p> <p><b>Note 2: Instructors Training</b> - Go Ape instructors must pass through a rigorous training and assessment programme before they can instruct on Go Ape. To be selected for training prospective instructors must demonstrate they have the requisite aptitude and experience. They then undergo training in safety instruction and procedures, operational limits on the use of the <b>course, course inspections during daily course opening and closing, patrolling techniques, personal protective equipment, harness fitting and inspection, emergency operations, health and safety and customer management. Only instructors with experience and the correct aptitude are selected for additional training in rope rescue techniques. Instructors are first aid trained.</b></p>

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