

INSPECTION REPORT

Myddelton College



CLIMBING WALL

July 2016



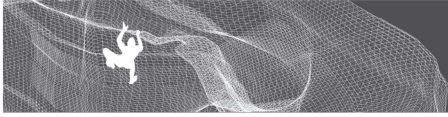
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Founding Member



Partner



DETAILS

Name: Myddelton College

Location: Peake's Lane
Denbigh
Wales
LL16 3EN

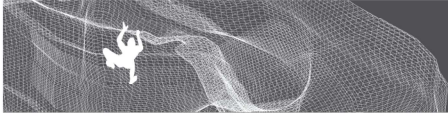
Date of completion: Wall – 2001 Cave – 2004

Date of inspection: 07/07/2016

Inspection class: Safety and Maintenance Inspection

Supervisor: Mark Crewdson

Inspector: Jack Metcalfe



EXECUTIVE SUMMARY

The Myddelton College climbing facility, which was built by Entre-Prises UK Ltd in 2001 provides approximately 160m² of climbing surface consisting of an Imprint (fiberglass) wall, a Belay Ledge, Bolt on Holds into the brickwork of the school wall and a Cristalithe wall. The climbing walls are suitable for top roped and lead climbing for beginner to intermediate abilities.

The artificial cave, which was also built by Entre-Prises UK Ltd in 2004 is constructed from fiberglass.

The climbing & caving facility, which has been unused for the past 3 years, was found to be in good condition at the time of inspection.

The following constructional elements were inspected:-

- Bolt-on hold placements
- Bolt-on holds
- Lower off belays
- Intermediate protection points
- Wall surface integrity
- Sub structure
- Safety surface
- Caving facility

The condition of the Myddelton College climbing & caving facility and its components guarantees continued compliance with the European Standard for Artificial Climbing Structures. EN 12572:2006

Entre-Prises (UK) Ltd recommend that the artificial climbing structure is inspected every 12 months.

Inspection Certificate No. EPC1002/2451 is enclosed.

❖ Description of Inspection

The climbing walls have approximately 2500 bolt-on hold fixing points distributed over their surfaces. They were inspected externally and where possible internally for integrity and damage at random.

❖ Findings

All of the fixing points inspected and checked showed no problems with either fouled threads or surface damage however, 15 on the Imprint (fibreglass) wall were found to be seized.

Also some resin in studs on the brick wall were found to be missing but had been filled in causing no issues at the time of inspection.



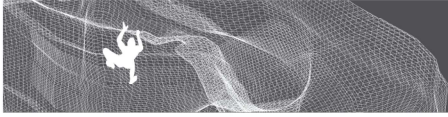
❖ Action Taken

None required.

❖ Recommendations

It is recommended that the fixing points are inspected every three months. If any are found to be loose or fouled they should be replaced when route setting takes place. Also during this process, it is advisable to lubricate the bolts to prevent seizing of the bolts due to corrosion.

More placements can be added to the wall if this is desired as this will help to create more varied routes.



BOLT-ON HOLDS

❖ Description of Inspection

The climbing walls have approximately 600 bolt-on holds distributed over their surfaces. The bolt-on holds can be located to any of the fixing points. Both a visual and manual inspection was conducted to check for cracks, hold condition and other signs of weakness.

❖ Findings

The bolt-on holds are sound and show no signs of weakness, although they were a little soiled as a result of not being used for approximately 3 years. It was noted that there were no set screws used on the wall. Approximately 25 of the bolt-on holds were found to be loose or spinning when weight was applied. Some bolt-on holds were found to have finger traps on the Imprint wall.



❖ Action Taken

Any loose bolt-on holds were mechanically tightened with an impact wrench. The bolt-on holds causing finger traps on the Imprint wall were rotated to alleviate the problem.

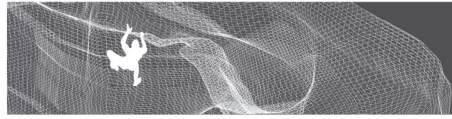
❖ Recommendations

It is recommended that the bolt-on holds be regularly checked. It is important that the supervisor of the wall regularly checks and tightens the bolt-on holds. Any loose or spinning bolt-on holds should be reported to the wall supervisor and all climbing must stop on these ropes until the holds are tightened.

It is recommended that the bolt-on holds be reconfigured on a regular basis in order to maintain interest in the climbing wall and develop the skill of the climber.

Cleaning holds using either a pressure washer or old dishwasher to maintain friction.

Regular brushing of bolt-on holds to reduce dust levels.



BELAY POINTS

Description of Inspection

There were in total 9 lower off belays situated at the top of the walls. There were also 4 intermediate protection points comprising of standard hangers. The lower off belays and intermediate protection points were both visually and manually inspected for tightness, orientation and wear.

Findings

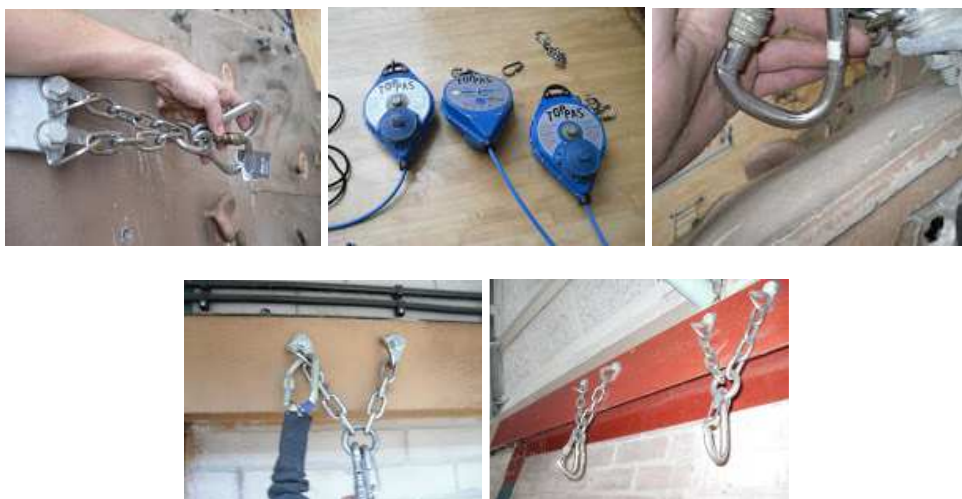
The lower off belays and intermediate protection points were found to be in good condition. However, in all areas around the climbing zones there was minor wear on the snap gate karabiners.

4 of the Y-hangs were found to be insufficient for today's climbing standards with only having a screw gate and not a second snap gate karabiner. These were taken out of action as they were not considered safe. The other 4 have both snap gate and screw gate. Although they were not fitted correctly (back to back) they were seen as safe and in good condition at the time of inspection.

On inspection it was found that an intermediate protection point, at 3m, had been removed on the articulated wall and 2 other protection points were found fitted to just T-nuts, this is considered unsafe.

The brickwork climbing wall has 3 auto belays which are the old Toppas belays. We were asked to remove these from the wall at the time of inspection. Although the client believed the removed auto belays were in date and fit for purpose, on closer inspection when removed it was found that they were out of date (see stamped dates on units).

The client advised that no top ropes are left in place for safety reasons. There is one thin cord to enable a top rope to be pulled up on the Imprint wall. The other climbing lines have no intermediate safety hangers so no lead climbing can take place, to fix top ropes.





❖ Action Taken

The fixings were tightened as required. The 4 Y-hangs taken out of action were replaced with new ones- 3 on the Imprint wall and one on the articulated wall. The 2 lower hangers were removed and the hanger at 3m was re-fitted on the articulated wall.

❖ Recommendations

All setting of top ropes should be done by a trained member of staff before any climbing takes place on the walls. In order to fix top ropes, this must also be done by trained members of staff by a means of aid climbing along the top of the wall. Another option would be to fit thin para cord ropes which can be pulled up easily and more safely.

Where no intermediate safety hangers exist no lead climbing can take place.

No intermediate hangers should be fitted or used below 3m.

As with all belay points it is recommended that they be checked before and after every use and if any defect is identified then the belay must not be used until the problem has been rectified or the equipment has been replaced.

Should any of the leader protection points become loose, then all lead climbing on that section should be discontinued until the anchor unit has been inspected and consequently re-tightened or replaced.

NB. The Toppas belays should not be used until further investigation takes place to see if they are safe. It is recommended that they are serviced by an authorised dealer before being returned to use (not Entre-Prises).

Entre-prises cannot be held responsible if they are used without being serviced.

Alternatively- Entre-prises can supply new TruBlue auto belays if desired.

❖ Description of Inspection

The Imprint section is constructed of standard modular GRP panels. The Cristalithe section is constructed using plywood panels coated with a sand and resin mixture to create a high friction finish. The remaining climbing wall surface is constructed of bolt on holds fitted directly to the internal brickwork surface of the sports hall, with a belay ledge at the far end.

A visual and manual inspection of the wall surface was conducted to check for signs of integrity and weakness.

❖ Findings

All the walls surfaces were found to be in good condition with all connection fixings secure. There was slight movement at the base of the Imprint wall to the bottom right but all bolts and fixings were secure and it was considered safe. There is slight rubbing on all the wall surfaces and there was also slight rope wear on the edge of the belay ledge. However, this has been covered with lino and was fit for purpose at the time of inspection. It was pointed out to us before the inspection that there was a gap across one of the walls, on further investigation this was found to be on the articulated wall and necessary for the articulated slab to function correctly.



❖ Action Taken

None required.

❖ Recommendations

Visual checks of the wall surface should be carried out regularly to check for excessive wear or damage.

❖ Description of Inspection

The Imprint substructure consists of bars fixed to a steel structure fixed to the buildings primary brickwork. A visual and manual inspection of the sub-structure was conducted in order to assess its condition and integrity.

❖ Findings

The substructure was found to be in good condition. Every bolt & connection was checked for tightness and nothing was found to be loose, fouled or missing.

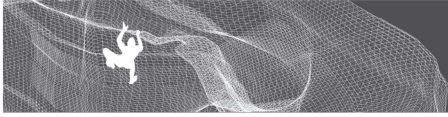


❖ Action Taken

None.

❖ Recommendations

None.



❖ Description of Inspection

There is no safety flooring around any of the climbing surfaces, apart from a padded wall and a soft gym mat at the base of the Belay Ledge.

❖ Findings

The safety matting was considered ok at the time of inspection at the base of the Belay Ledge.



❖ Action Taken

None.

❖ Recommendations

It is recommended that safety matting is used under all climbing facilities (although this is not essential). This could be in the form of articulated matting fixed to the base of the wall and raised up when the wall is not in use. This will also deter people from climbing the wall when the wall is not in use or when there are no staff around to supervise climbing lessons.

Visual checks of the safety surface should be carried out regularly to check for excessive wear or damage.

◆ Description of Inspection

The caving system is located in a separate building close to the sports hall, this has not been used in several years. The cave system was checked internally for sharp edges, cracks, movement and general wear.

◆ Findings

At the time of the inspection the caving system was found to be in very good condition. It was noted that there was slight wearing of the paint on the floors of the cave.

There are 4 emergency exits on the system all having doors which hold shut with magnets and a security key. The key wasn't present at the time of inspection and the doors were all open, therefore the emergency exits could not be tested.

The caving system has air conditioning, but this was not switched on at the time of inspection.



◆ Action Taken

None.

◆ Recommendations

It is recommended that a security key is used to keep the doors closed and kept in a known safe place close to the exits.

We recommend that the air conditioning unit is properly checked by a qualified electrician annually.

It is also recommended that the cave is hoovered out as there are quite a few cobwebs and dust with it not being used for some years.