

## Case Study

### Polwhele house, Truro



Polwhele House School



Tower during construction



Completed Octagonal Tower showing access ramp, slide, scramble net and jungle ladder.

Polwhele is a beautiful and historic manor house set in a safe and beautiful 30 acre site on the outskirts of Truro.

It is an independent school that caters for all ages giving the advantages of learning in both the countryside and the city.

Polwhele House School believes the most effective and valuable education is one that enables children to enjoy their childhood whilst benefiting from an extensive range of opportunities both in and out of the classroom.

This extends to outdoor play and that is where we at Caledonia Play were asked to step in and offer our services.

They were looking for beautiful timber play equipment that would not only challenge the children physically on all levels, would also fit beautifully into the stunning natural setting and would last for many years to come.

#### Caledonia Play installed the following:

- An Octagonal Tower with a variety of access and exit points.
- A 30m Flying Fox Zip Wire extending from a large tree across existing grassland.
- A Basket Swing.

#### Installation procedure

The tower unit was installed first as there was defined space. If that area had to change shape or position for any reason success, old rots, drainage or foundation it meant that the safety areas of each individual products were not compromised.

#### Bespoke Tower (CP-BES Tower)

Constructed as a slightly elongated octagon with a deck that is approximately 3.0 x 3.0m and 1.5m high, the structure is supported by ¼ sawn 14cm diameter machine-rounded timbers. These are fitted with bitumen heat-sealed sleeves, which reduce any timber having direct contact with ground moisture. The main deck platform is constructed with machine-rounded timbers fitted to the main legs, supporting the 32mm redwood decking. In addition to the slide, the deck platform has a variety of different climbing activity elements fitted including climbing ramp, scramble net and rock wall which provide access onto the deck platform. The sides that do not have climbing elements are enclosed with half-round balustrades supported by rails that are fixed to the main supporting legs.

Surfacing for this area is bark and it was ensured that it was filled to a standard conforming with EN-1177 for a critical fall height of 1.5m.



Completed Octagonal Tower showing climbing rock wall and fireman's pole.



Bespoke Flying Fox Platform around existing tree.



Flying Fox Platform A Frame.



Basket Swing with galvanised steel ring.

#### Tower access/exit points:

Green Wave Slide 3.0m

Jungle Log Ladder with rope handrail

Scramble Cargo Net with hemp rope (1.2 x 2.0m) with timber frame

Timber Climbing Ramp with Pull Rope (0.8 x 2.0m)

Vertical Rock Climbing Wall (1.2 x 3.0m)

Fireman's Pole - Stainless Steel

The structure has been designed and constructed in a manner to allow for it to be developed and different activity elements to be easily added in future.

#### Caledonia Play also installed the following products:

##### Flying Fox Zip Wire (K-18 30m)

The 30m long Flying Fox Zip Wire is a dynamic and fun play item, ideal for large open play areas. The starting point is from a small bespoke platform supported by an existing tree with a lead-in ramp. A free-standing, A-frame tower acts as the anchor for the cable with tensioning winch fitted to the top pole. Each leg is extended with metal extension legs secured into the ground with concrete. The stainless-steel carriage supports a button pendulum seat and has a braking unit with a rubber buffer on a compression spring. The compression spring system at the finish ensures a safe, controlled ride to the end.

All timbers used have been pressure-treated and fitted with post saver sleeves to protect the section below ground level. A safety surface of grass matting was laid at key areas under and around this product.

We ensured that the Flying Fox did not run from tree to tree as originally requested as it would have been difficult to gain enough tension on the cable system as in time it would stretch and sag.

**Basket Swing** has a timber frame constructed with 10cm diameter machine-rounded legs that are fitted with heat-sealed bitumen sleeves and extend into the ground. The legs support a top swing beam of 14cm diameter. The all black 1.2m basket swing is supported by cast stainless universal swing joints with washer plates and safety chains.

The basket, which is made with an internal galvanised steel ring, stainless steel chains and herculean rope, is of commercial standard quality and conforms to European Safety Standard EN1176. The basket is designed to carry up to a tonne and is certificated for people with additional support needs.

#### Services provided by client:

Access to water supply.

Clear access and parking for the delivery vehicles.

Access into the area at any point in the working day.