

Queenborough School & Nursery – Queenborough, Kent

Product: 17.04m x 4.65m Coniston Wall Mounted Canopy

Commercial Fire Doors

Soft Play Safety Surfacing

Canopy Colour: White

Roller Shutter & Doors Colour: Sky Blue 5015

Soft Play Colour: Blue

Estimated Value: £63,000

Completion Date: February 2019

Contractor: Carré Consultancy



The Brief

Queenborough School and Nursery in Kent were looking to upgrade their outdoor space to create an all-weather outdoor learning and play area adjacent to one of their classrooms. As such, they contracted Carré Consultancy to source a supplier to help them create this new area and they chose Able Canopies.

They wanted to create an outdoor area which could be used all year round. This created some challenges; outdoor spaces can become wet and slippery during rainy periods and too much exposure to UV rays can be harmful to our health.

The school already had an existing canopy purchased from another company many years ago which was constructed from timber, yet it was no longer suitable for their requirements. Even though they needed a new canopy, they were keen to reuse as much of the timber materials from their existing canopy to remain sustainable and generate more facilities for their pupils, whilst keeping costs to a minimum.

At Able Canopies, we are fully aware of the importance of sustainability and were therefore keen to work with both Carré Consultancy and Queenborough School & Nursery on this project.

The Solution

Upon completion of the site survey, our Business Development Manager, Paul Townsend arrived back at the office to put a proposal together, not only for a canopy solution, but also to brainstorm a selection of outdoor play and educational equipment that we could create using their old timber posts.

Paul Townsend explains: *"I was keen to meet the 'Sustainability Challenge' with an enthusiastic response that put the original canopy materials to 'best use'. In so doing, we had discussed the idea of a water feature and a second idea (mainly to use up some of the 7 Posts made available through demolition) which was to take advantage of the Forest school, and to get the children to engage in local wildlife using a weather proof 1080P quality 'Action Camera'."*



Figure 1: The new canopy with soft play safety surfacing

We have many products that can protect from the sun, rain and wind as well as other seasonal weather. It was clear that the best solution for this situation was the Coniston Wall Mounted Canopy which will protect staff and pupils from the rain, as well as providing shade and high UV protection from the sun.

The staff at Queenborough wanted the area to look good whilst also offering functionality for lessons and play. As such, we proposed a 17.04m x 4.65m Coniston Wall Mounted Canopy that was supported by rear steel goal posts as the supporting wall was not suitable for a wall mounted structure. It was agreed that the canopy should feature side fills on both ends to block wind driving in from either side of the canopy and would be enclosed along the front with secure roller shutters and commercial fire doors. As we offer the whole package, we were also able to include the supply and installation of soft play safety surfacing underneath and leading to the canopy.



Figure 2: The completed installation with secure roller shutters and commercial fire doors

A canopy with such a high level of protection enables the teachers to completely enclose their outdoor play area when the weather is particularly unpleasant, allowing them to protect their pupils from all the elements when required. It is also perfect for storing equipment securely during the evenings and weekends.

Both the school and Carré Consultancy were thrilled with the proposal of the new canopy and the recycling of the old canopy posts.

The Installation

The installation went ahead in a number of phases with the canopy demolition and installation taking place first, then the soft play, the installation of the secure roller shutters and doors, and then the equipment made from the recycled timber posts.

The roller shutters and doors were supplied in Sky Blue (RAL 5015), which brightens the area up nicely, giving the structure a real wow factor.



Figure 3: A close up of the commercial fire doors and secure roller shutters on the canopy

All phases went ahead with no problem along the way and all involved were delighted with the end result.

As a result, children can play and learn in safety, while enjoying all the benefits of the outdoor space.

The Outcome of the Recycled Posts

We are able to create two advantageous products for the school from their old canopy which was a bird table with an action camera which could be played back in lessons and a water feature which could be incorporated into outdoor play and learning.

The Bird Table: The bird table featured an action camera that can take both videos and stills and was mounted on a 2m high post which has an upper and lower pulley. The camera is attached to a continuous 'loop' and allows the camera body to be raised or lowered to either:

1. enable children to get involved in replacement batteries and SD card handling
2. Capture animal activity at ground level or at any height up to a maximum of 1.8m above ground level.

To encourage birds to visit the table and to record their activities, a second post was installed at 3m from the camera lens (as recommended by manufacturers) and it was fitted with an 800mm x 800mm flat table top, designed to enable unhindered photography of any airborne visitors and their activities.



Figure 4: The action camera installed onto one of the recycled posts



Figure 5: The view of the bird table from the action camera

The Water Feature: The water feature developed into an interesting array of characteristics that involved a pump which lifts water from the reservoir at the base, to a reservoir at the top. The water is then discharged in a controlled flow rate to a horizontally mounted 'stage 1' gutter section. This gutter section includes a central pivot point, where children can pull a handle at either end, to determine the direction that the water flows.

This enables the children to direct the water to either the left side where the water will flow into a water wheel, demonstrating the conversion of water into energy.

Alternatively, they can direct the water to the right side where it will flow into a pipe with drillings at 100mm intervals. Water then passes evenly through each of the five 8mm drillings, and a gentle stream fills a series of inverted recycled plastic bottles simultaneously - encouraging children to consider the fundamental principles of gravity fed irrigation.

The bottles can then be drained into a 'stage 2' gutter which will allow water to collect from the bottles, and discharge back into the lower reservoir where it can be recycled to the upper reservoir.

The lower reservoir has sufficient capacity to allow the placement and growth of pond plants and in time, should attract numerous water-borne insects for children to explore and learn about.



Figure 6: The water feature made from the recycled posts

Before and After:



Above: Before the canopy installation



Above: After the canopy installation