

**Building Contractors Ltd** 

CASE STUDY 00002 - BT Fleet, Southampton

Commercial Roof Refurbishment

## **CASE STUDY**

ACCL01/0001

Date of Project:

September - November 2019

Project Location:

BT TEC & Fleet, Nursling Industrial Estate, Southampton.

Project Type:

Commercial Roof Refurbishment.

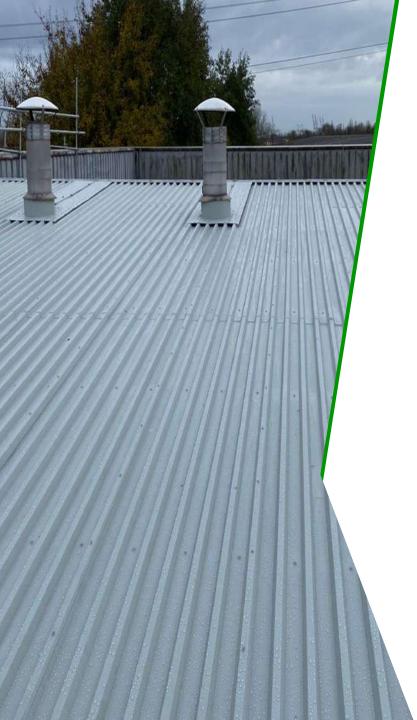
Contract Type:

Sub-Contractor

Contract Value:

£110,000.00





# BT Fleet, Southampton

Commercial Roof Refurbishment

Tritec Building contractors where awarded with the following works:

- ➤ 2485 m2 of liquid coatings Applied to the metal composite roof including corrosion treatments.
- ➤ 299 m2 of roof lights replaced A total of 23 No. GRP roof lights replaced with new.
- ➤ 247 m2 of roof lights over-sheeted A total of 19 No. GRP roof lights over-sheeted with matching profiled steel roof sheets.
- ➤ 167 m of gutters refurbished A total of 2 No. gutters refurbished with gutter liner.

Tritec Building Contractors are experienced refurbishment contractors that provide efficient services to extend the lifespan of commercial building fabrics.

## Roof Sheet Refurbishment - Liquid Coating System

The existing composite roof was in a poor condition with many years of neglect from maintenance, there was various areas of corrosion that had caused holes in the roof sheets that had to be addressed prior to coatings and cut edge corrosion throughout the sheets and flashing details.



The composite roof was heavily soiled due to little or no maintenance over the years, the original factory applied applied coated had started to fail with loose and flaking coatings throughout, with corrosion to the panel profiles and cut edges of the ridge, hip flashing and soaker sheets.

Some areas of the panels had also corroded leaving small holes in the substrate, most of the roof fixings had become loose and the plastic cover caps had completely perished or washed away.

There was various debris located all over the roof from animal activity such as small animal bones, bird nests and droppings present.

With such harsh environments on the south coast and the accelerated corrosion that it presents, any commercial building if not maintained regularly will be subject to premature corrosion and ultimately a reduction in the life cycle of its components.



The preparations to the roof started with a jet clean to remove all debris and loose coatings, once the roof was clean and clear we began to treat the corrosion. The corrosion treatments included mechanically abrading the substrate to remove the surface corrosion and any gingering.

We the primed the areas, filled any holes and tightened the roof fixings, with all fixing heads being primed and encapsulated with sealant.

The application of HD Sharamans Seamsil ® was applied to all lap joints to seal and prevent any surface water being transferred under the sheets via capillary action, preventing any potential corrosion at the sheet laps, this treatment was also applied to the cut ends of all flashings to the roof detail.

Two coats of the HD Sharmans Delcote coating was then applied via roller to the total roof area encapsulating the composite sheets and extending the life span for an additional 20 years, this was complete with a manufacturer's product guarantee.

#### Gutter Refurbishment - Installation & Cleaning

The existing outer roof lights had been effected by UV degradation and general wear and tear, as a result they were opaque and not transmitting much natural day light into the warehouse's below, we were able to retain the inner sheets and restore them with a cleaning process to save our client some money.



The gutters to the roof were in quite a bad condition, with high levels of debris, silt and vegetation in the gutter valleys, most of the outlets where obstructed or completely covered. Little or no maintenance can cause the gutters to become overwhelmed by vegetation which is return causes excessive weight on the gutter boxes which can open the box gutter joints causing leakage and water ingress, the moisture and standing water can accelerate corrosion.

All commercial gutters are designed with a flow rate to deal with the flow of water efficiently, when gutter channels and outlets are blocked it means that during heavy rainfall the gutter channels will be overwhelmed, overfill and potentially find it way into the building by rising up over the upstands under any closures and down into voids which are not designed to take water.

Heavy debris can also enter the outlets, block and congest the downpipes causing unseen issues that can be costly to rectify.

It is important that regular maintenance is planned and undertaken annually to prevent unnecessary and excessive remedial costs.



In order to fit the new liners in to the box gutter channels all debris had to be cleared, bagged up and removed from roof level down into the site skip, once the gutters had been cleared any remaining outlet guards where removed and placed to one side.

All gutters where washed through and outlets cleared thoroughly with jets, to leave free flowing. Prior to installation HD Sharmans attended site in order to measure up for the bespoke Plygene ® which is made to measure.

Upon delivery, the HD Sharmans Plygene gutter lining system was fitted to the gutter complete with joints, stop end and outlet pieces.  $\,$ 

As a fully trained and approved applicator of HD Sharman systems, all works were signed off and supplied with a 25-year manufacturers guarantee supplied by HD Sharmans.

The end-client now has peace of mind knowing that the gutters now have an extended life span of 25 years.

### Roof Light Replacement - Installation & Over-sheeting

The existing outer roof lights had been effected by UV degradation and general wear and tear, as a result they could not transmitting any natural day light into the warehouse's below.



The existing GRP roof lights where covered by organic matter and had started to completely breakdown due to UV exposure and general weathering, the condition of the sheets stopped any type of day light transmitting into the areas below.

Not only does this reduce the light but makes the building consume more energy in lighting the warehouse during day light hours.

The GRP sheets had become completely fibrous and small holes and cracks had formed into the sheets causing water ingress on to areas below, there was also evidence of previous issues owing to various applications of sealants around the fittings and joints.

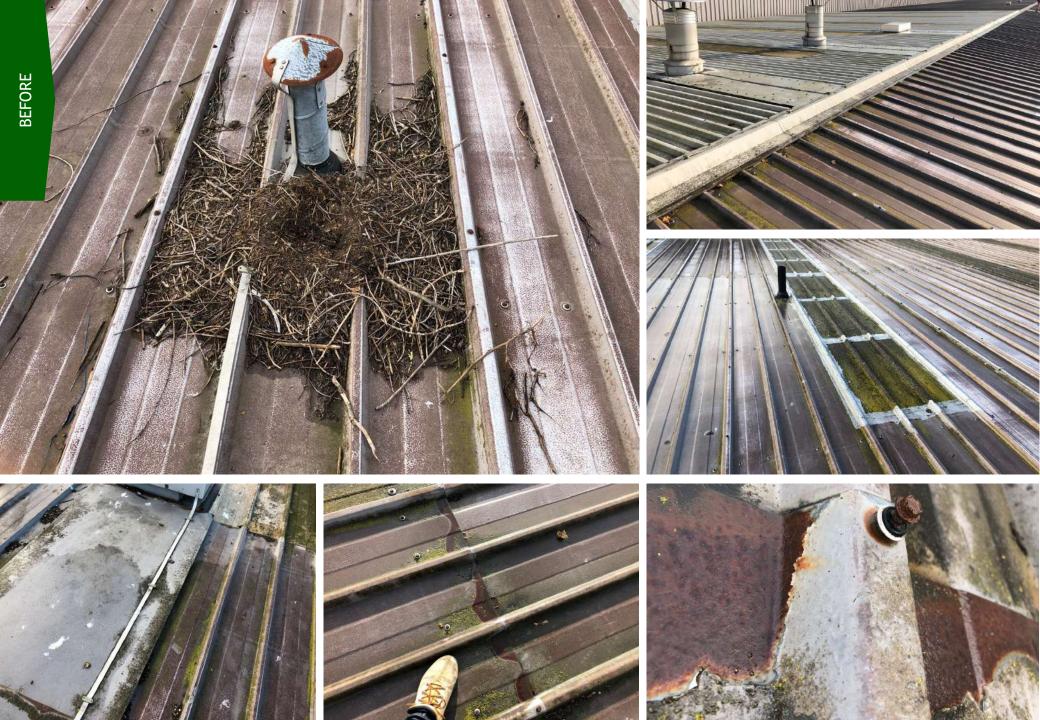
There was also several lights that were redundant due to being located over offices which celling tiles installed.

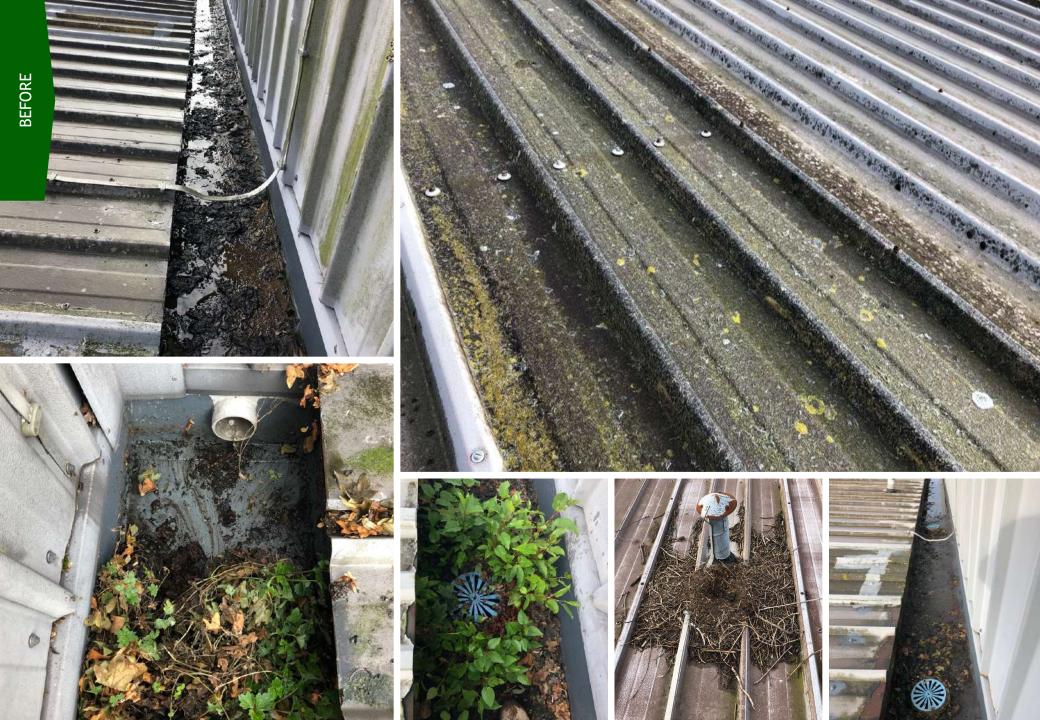


The redundant lights not required where over-sheeted using steel roof sheets to match the profile, these were fixed down and sealed using butyl sealants to leave watertight.

The remaining roof lights where released, removed and lowered from roof level and into the site skip, the new GRP roof lights were inserted into the remaining voids and fixed down using butyl sealants and new fixings, poppy red caps were then fitted to the fixings heads to highlight the fragile roof area.

The GRP roof lights fitted came complete with a 25-year life expectancy.









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