Roseville

Commercial

Case Study - 60 London Wall



Client: Skanska

The Project:

The rework of a 1980's office building into a modern workplace. The project involves stripping the building back to the structural steelwork and re-coring to provide retail and high quality modern workplace accommodation.

Our Role:

Structural Steelwork Preparation using a new to the UK Construction Industry, media blasting system "Sponge Media Blasting" prior to application of Intumescent Paint Fire Protection to the Steelwork.

The building is in the centre of the London Financial District, where noise, dust and other environmental restrictions are imposed on the projects construction. The stripping of the building included removing the original board fire protection from the structural steelwork columns and beams. The exposed steelwork needed to be media blasted in preparation for a new decorative fire protection system which would be applied to the clean steelwork.

As there will not be any ceilings installed, both the steelwork and the exposed metal soffit of the composite floor slab would have to be painted to a good standard of decorative finish. Traditional media blasting using conventional media system would not be allowed under the environmental controls imposed on the project. Roseville were asked to search the market place for alternative solutions. The challenge was to present a media blasting scheme to Skanska that reduced traditional media dust contamination in operation, reduced environmental impact and reduced disposal of contaminated media waste.

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The Solution:

The Sponge Media Blasting Solution:

The Sponge Media Blasting system uses a composite media of Open Cell Sponge and Abrasive. This greatly reduces dust and being recyclable, the actual tonnage of media required. Compared to conventional media blasting the impact on the environment is greatly reduced.

The Low VOC and WELL Fire Protection Solution:

Working with the Intumescent Paint manufacture, Roseville recommended the use of a water based Intumescent Paint System, applied on site. Water based Intumescent paint has very low VOC levels, classified as trace. This benefits compliance to the Main Contractors WELL obligations.

The Environmental Benefits:

The Environmental benefits for the Sponge Media Blasting are best illustrated with the following figures: Steelwork Area: 11,200 M2

Sponge Media Used- 35Te

Dust suppression- The dust contaminating in the air was less than 1mg/m3 Delivery Transport Cost- £1125 Waste Removal Transport Cost- £1125 Landfill Cost- £15,750 Landfill Weight- 35Te

Projected Figures - (if Conventional Media- 270Te had been used)

Dust suppression- The dust contamination in the air would typically be 20 to 40mg/m3 Delivery Transport Cost- £5,250 Waste Removal Transport Cost- £5,250 Landfill Cost- £121,500 Landfill Weight- 270Te

Project Summary:

Roseville Projects Ltd played a major role in meeting the performance standards required for the delivery of the new fire protection system on 60 London Wall. The new Sponge Media Blasting system and the decorative structural fire protection solution will greatly minimise the environmental impact of the construction project and the low VOC Intumescent Paint system will protect the occupants long term health within the buildings. Low VOC, meet the WELL Standards, improved Safety for workers because of low rebound, reduces the environmental impact to Air Quality by 40%, reduces Environmental Impact to transport by 80%, reduces the environmental impact to landfill by 80%. If this system is applied to future blasting works within the UK, the environmental impact of waste media would be reduced by up to 80%.

That's 80% less product, 80% less land fill, 80% less delivery cost, 80% less disposal cost.

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