

### Sir Max Aitkin Museum, Isle of Wight

Location	Isle of Wight
Area	Building exterior
Date	October 2016
Products	Mapei Colorite, Mapei Planitop Mapei Silexcolor and Silancolor Ranges 3M Scotchkote 152LV
Requirements	Stopping sea water ingress into the fabric of the building while projecting the aesthetics and heritage of the building.

Further to the site visit carried out by Mark French from Promain and Martin Andrews from Mapei where we carried out a visual inspection to the exterior walls above and below the level of the wooden veranda. From this inspection I would like to draw you attention to a few points we noted.

Firstly, we inspected a plinth that had been created from Lime render that had been painted with Dulux Weathershield, this product offers low micro porous properties therefore will not allow water to transmit through the coating and evaporate in the air. The building façade coating was in general in sound condition with only minor breakdowns of the film in localized spots.



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The plinth detail which we are aware has been rendered with a lime based render is particularly effected as per the photos and is certainly due to moisture ingress and or rising moisture, as witnessed by efflorescence approx 1 metre high leaching out through the brick lines. This to be completely removed allowed to dry and treated with either Silex or Silan products.

Outline recommendations for coating works overcoat the existing paint work:

1. Application of Colorite performance, clean down existing coating with high pressure washer, repair blown coating film, prime and overcoat. Treating all metal work with proprietary rust inhibitor after cleaning (see data sheet on Mapefer)
2. Remove All & Reinstale

As discussed this would involve the removal of all existing coatings and the reinstatement with Mapei preparation products from the Planitop range. Planitop 100 /200 and on completion a change of coating type to Mapei Silexcolor Pittura or Silan Pittura Plus mineral coatings which have enhanced breathability combined with very robust water shedding properties.

While the above are well understood as coating systems we are aware of potentially bigger issues to be considered and addressed in the first instance, namely:



Image 1



Image 2a



Image 2b

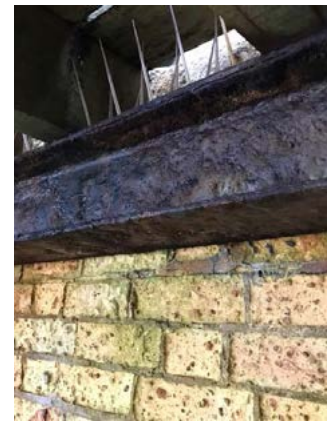


Image 3

1. We have witnessed the effects of chloride degradation to the standing buttresses as detailed in image 1.
2. There is evidence of tidal scour to the bases of the concrete columns and wash out of the concrete. See Image 2a and 2b.
3. The interlayer of brickwork shows evidence again of abrasion due to tidal and storm action, this manifests itself in image where the mortar lines are proud of the brick face.
4. Faces generally of the defence wall as seen in images have suffered the same level of degradation.
5. Our potential concern is the erosion due to rust of the I beam as per image, it is our opinion this must be investigated professionally. See Image 3.

An visual inspection of the steelwork to areas above the water line was made and it is felt that for long temp protection the best course of action would be to remove existing coating by sand blast apply a coat of 2 pack epoxy paint applied followed by a coat of 2 pack PU paint be applied this should offer a life expectancy to first maintenance of 15 years.

For the I beam, subject to inspection by an expert, again a sand blast and a coat of 3M 152LV should be applied at a minimum of 300 microns, I am happy to discuss this further at a later date.



## Conclusion

1. The overall project the coating issue is relatively simple to address.
2. We strongly recommend that a corrosion/structural engineer be appointed with the remit of investigating the foundations, pillars and I beam before any attempt is made to address the aesthetics'.
3. On completion of his / her report a full package of remedial works to the base can be provided by Promain with an accompanying specification for the coatings issue.

All the above is written to ensure that the trust, the building and "envelop" are ensuring the integrity and longevity of the building particularly against the background of potential change of use to include wedding and social functions.

We are able if requested to advise on experts in the fields mentioned above and would be pleased to introduce you to them.

Mark French Promain UK Limited