

18 November 2013

ALTERATIONS TO PIETERMARITZBURG STATION FOR THE BUSINESS EXPRESS LOUNGES
SAHRIS Case ID : 1623

DEVIATION :

1. Replacement of ventilation turret over staff toilet block.
Refer to drawing: s282.3-104
2. Retention of existing roof over staff quarters entry.

(1.) **The ventilation turret** was inspected both internally and externally and observed that the exposed timbers had disintegrated and were completely rotten at the base. The weight of the lead and steel domed roof had caused it to twist and collapse onto the central ventilator.

Furthermore the lead capping and base of the 4-posts had disintegrated and was no longer water proof. See photos overleaf.

As the instability of the turret now posed a safety hazard, it was decided that the turret should be removed in two parts, which was done by crane. The damage was further assessed and was more extensive than first envisaged.

Reconstruction of the turret in the original material was investigated, but the cost was prohibitive within the overall budget of the project and the client asked for alternatives to be tabled.

The most suitable alternative is a fibreglass product. It will be made from a mould from the original and will be a fraction of the weight of the original, therefore not compromising the original roof timbers supporting it. The original steel central ventilator will be retained to form the core and it will stabilise the structure. The costing has been accepted by the client.

The colours will be closely matched to the original white and green and the finish will be matt. The material is uv-resistant and will be able to be painted if needed in the future.





Base of corner post



Lead capping and post base



Domed roof and ventilator in
Foreground.

Motivation and Precedent :

The project team would like permission to proceed with the fibreglass replacement. The original design and sizes will be followed as closely as possible to match the original. The manufacturing process will be followed by the architects and regular factory inspections will be made. The team believe that the new product will be suitable in the current use and will perform as well as the original with little maintenance.

Reference is made to the Durban University of Technology Smith Street Campus where a similar situation arose. Due to budget constraints and practicalities of project the turret was replaced in fibreglass. The roof was able to be restored within the budget, which would not have been possible if the turret were reconstructed. The architects for the project have informed us that it has performed well in the 3-year period it has been in place.



(2.) Retention of existing roof over staff quarters entry :

The client has requested that the roof over the staff entry door not be removed as recommended in the specification. This roof was an addition to offer protection from weather to the double door entrance off the Lane and platforms.



Prepared by Lindsay Napier
on behalf of LDM Project Managers and Sakhisizwe Architects