



WP Technologies

CONSTRUCTION SYSTEMS

Report Job No. 1605

To [REDACTED]	[REDACTED]	Date 25/07/2016
From: Grant McIntosh	Tel 0411 774 212	Report No. 1605

Subject- Report: [REDACTED] Mandurah 6210

Laraine,

WP Technologies is pleased to submit our report for water entry to [REDACTED] Mandurah 6210, as per site inspection.

1. Strata Report

After inspection on [REDACTED], there are signs of water damage/water staining to the ceiling above the entrance area (*pic A & B*). After initial inspection we can assume the damage is caused by a moisture entry issue from the roof area above. On inspection no water can be seen ponding on internal hanging ceiling, as the internal brick wall is blocking visual access to this area.

On initial inspection there are four areas that may be causing water entry to the building.

These are:

- i) The roof edge flashing/capping (*pic C & D*).
- ii) The roof tile areas above (*pic F*).
- iii) The plant area roof area penetrations (*top edge of pic H*).
- iv) The box gutter in plant area roof (*pic G-J*).

The pictures taken show visible water damage at time of inspection (*pic A*), however without removing roofing components around this area, we cannot be 100% sure as to a possible cause.



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2. Reference Pics.

Pic A



Pic B



Pic C



Pic D



Pic E



Pic F





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Pic G



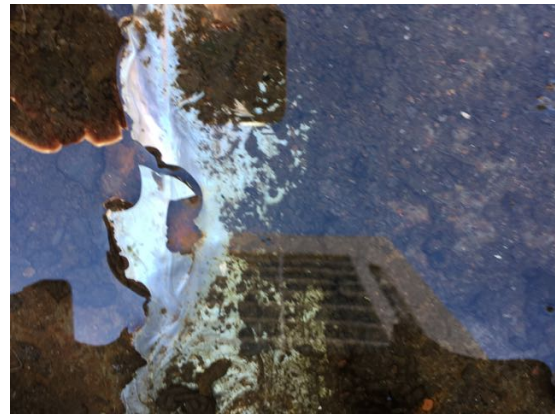
Pic H



Pic I



Pic J



3. Previous Repairs

I believe several repairs have been completed on this area of roofing over time, below are works that may have been completed for any number of reasons.

1. Roof tiles removed and replaced.
2. Silicone/Polyurethane to flashing/capping (*pic E*).
3. New PVC piping put through roof or modifications completed.
4. Bitumen waterproof bandage installed to box gutter lap joints (*pic J*).
5. Various silicone installations around the plant roof area.



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4. Recommendation

The main cause for concern at this point would be moisture entry to the building from any of the above areas mentioned. Water entry to the area is confirmed (*pics A & B*) and leak testing could be completed to determine the course of action to be implemented that will lead to resolving the concern.

However, as the roof cavity between the roof and the internal ceiling would be difficult to access and a visual conformation is unlikely. I would not complete water testing and would recommend repairing the obvious faults in this instance.

In my opinion the main water ingress is from the box gutter (*pic G-J*) being directly above the leak and in poor condition. The box gutter contains ponding water and the lap joints are showing signs of deterioration. Box gutters are a common source of water ingress to buildings and in this case, more than likely the source of water ingress. As you can see in (*pic G & I*) the box gutter lacks enough fall to transport water though to drain end, this will also need correcting.

Compounding to this water entry, is the possibility the roof flashing/capping area could be a source of water ingress. The initial black bitumen sealant between flashing/capping and roof sheeting has broken down and letting water pass through, as seen in (*pic D*).

The roof tiles appear to be in good order, some minor cracking in the pointing but nothing worth noting at this time.

All roof penetrations appear to be ok, but resealing is recommended to a select few.

WP Technologies will supply a scope of works along with repair solution & quotation for the below works.

Our recommendation for moving forward to eliminate water entry issues [REDACTED], Mandurah 6210, is as follows.

- i. Gain access building plant roof and install silicone to all flashing/capping junctions
- ii. Complete visual inspection to all penetrations and seal as required.
- iii. Install new box gutter and box gutter support ensuring fall is corrected to not less than 5mm per Lm of guttering.



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5. Project Costs

Description	Cost
Remove failed Bitumen sealant & Install silicone to capping/flashing Inspect and install silicone to penetrations Install new box gutter (design plans to be drawn for approval & Manufacturing) Complete internal ceiling repairs and painting (Please allow access to common areas and laundry room)	\$TBA
Other	\$TBA
Total	\$TBA

6. Special Conditions, Exclusions and Clarifications

- a) We have allowed operating 8hrs per day Monday to Friday
- b) Client to provide single-phase power.
- c) Clean potable water supplied at mains pressure within 20m of the work area.
- d) WP Technologies to provide all waste disposals on site.

7. Commercial Conditions

- a) Payment strictly 7 days from invoice
- b) The acceptance of this report/quote and issue of subcontract or purchase order requires the acceptance of WP Technologies warranty terms and conditions.
- c) Unless otherwise specifically stated in writing via the issue of a project specific warranty document, WP Technologies warranty covering fitness for purpose, workmanship and products is limited to 5 years from the completion of works excluding fair wear and tear, this is based on WP Technologies warranty terms and conditions.
- d) This report/quote is subject to WP Technologies general terms and conditions of sale
- e) Rates and prices exclude GST
- f) This report/quotation is valid for 90 days.

We hope our prices are acceptable and look forward to being engaged to perform the work. Please feel free to contact us if we can be of further assistance.

Yours faithfully,

Grant McIntosh



Mandurah WA 6210

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