



Defective Plumbing Installation

Collingwood.

Report Date: 25 July 2023

VCAT Reference:

Property at: Collingwood.

Instructed by:

Client:

Date of Inspection: 18th July 2023

HolyMess Repairs • Roofing Company

ABN 31 666 327 813 License 32176

Unit 10 236 to 244 Edwardes Rd Reservoir

M: 0489 925 595

E: info@holymessrepairs.com.au

Table of Contents

1 Introduction. 3

2 Brief/Background..... 3

3 Documents. 3

4 Property. 3

5 Observed Defects. 3

6 Costing. 5

7 Conclusion. 6

8 VCAT Statement. 6

Appendices

Appendix 1 Costing..... 7

Appendix 2 Documents..... 10

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1 Introduction.

- 1.1 At the request of Ms. [REDACTED] the owner, I attended at [REDACTED] Collingwood, on the morning of the 18th July 2023: I was accompanied by [REDACTED] The purpose of my visit was to assess the plumbing installation in order for me to provide this Report.

2 Brief/Background.

- 2.1 [REDACTED] employed [REDACTED] of [REDACTED] to replace the roof at her property, [REDACTED] Collingwood.
- 2.2 The Compliance Certificate for the alleged completed work was signed by [REDACTED] licensed plumber number 15078862.
- 2.3 [REDACTED] subsequently found that the work was incomplete/defective, and she employed [REDACTED] to provide a quotation to rectify the defective installation.

3 Documents.

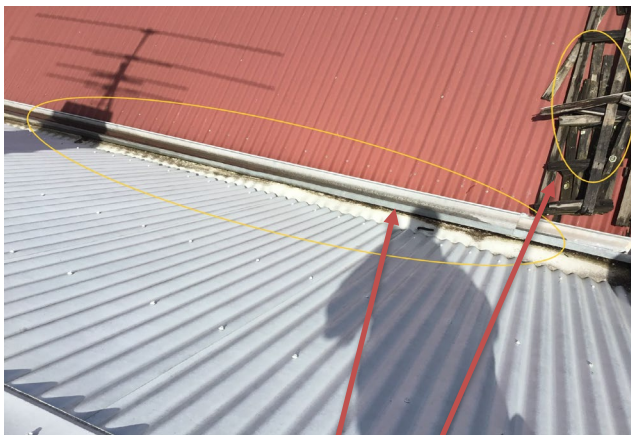
- 3.1 To assist me in the preparation of this quotation I have been provided with the following documents.
- 3.1.1 A copy of a quotation (QU0038) from [REDACTED] dated 9th December 2022.
- 3.1.2 Various photographs taken by [REDACTED]

4 Property.

- 4.1 The property is a turn of the century two storey terrace house that is under renovation. I understand that the renovation has been incomplete for many years.

5 Observed Defects.

- 5.1 Debris from the roof replacement has been left in the boxgutter and on the neighbour's roof. This debris has not been disposed of by the roof installer as part of their installation. There has also been a large amount of roof debris left by the plumber in the ceiling.



1. (RN Plumb. Photo) Roofing contractor has left a lot of rubbish on the roof.

5.2 The soaker flashing on the front parapet has not been overflashed in accordance with the Deemed to Satisfy Standard SA HB39:2015, figure 8.4(A). (Refer Appendix 3) The rectification will require the following work;

- 5.2.1** The flashing removed, and the uneven render/mortar on the brickwork removed from the parapet.
- 5.2.2** The flashing replaced with fixings @ max. 500mm spacing.
- 5.2.3** An overflashing installed, such as a step flashing or a chased flashing.
- 5.2.4** Replace the render/mortar above the flashing.



2. (RN Plumb. Photo) The apron flashing has not been installed correctly.



3. The apron parapet flashing has not been installed correctly.

5.3 A non-conforming sump has been installed in the boxgutter in the front of the chimney. This sump is defective as follows;

- 5.3.1** The sump has not been set into the boxgutter correctly.
- 5.3.2** The overflow from the base of the sump has not been extended into the open, as required by the Deemed to Satisfy Standard SA HB39. The overflow is discharging into the ceiling of the residence.

The sump, the downpipe and the overflow from the sump will need to be removed and reinstalled in accordance with Deemed to Satisfy Standard SA HB39:2015 figure 5.3.1. (b), clause 5.3,1 (b)(Overflow provision). Refer to Appendix 3.

The reworking of the sump, the downpipe and the overflow will require the removal and replacement of the ceiling and also the recently installed ceiling boxing for the downpipe.



- 4. The nonconforming sump and overflow.**
- 5. The sump, the downpipe and the overflow will need to be replaced with conforming sump, downpipe, and overflow.**
- 6. Note the rubbish left by the plumber in the ceiling.**



7. (PN Plumb Photo)

5.4 The chimney flashing is defective as it has not been overflashed correctly and it lacks fixings.



8. (PN Plumb photo) The chimney has not been flashed correctly, note rubbish that has been left in the boxgutter.

5.5 The rear rainhead overflow is too high and it is also undersized.

5.5.1 The rainhead will need to be replaced and a conforming overflow installed.



9. The rainhead overflows are undersized and too high.



10. The downpipes are required to be supported at maximum 2000mm spacings. This applies to all the relevant downpipes etc.

5.6 The downpipes on the front and the rear of the residence lack clipping. The downpipes are required to be clipped at maximum 2000mm spacing.

6 Costing.

6.1 The cost of rectifying these defective installations is

\$13,467.00

6.2 For a breakup of these costs refer to Appendix 2.

7 Conclusion.

- 7.1 *The installing plumber has a responsibility under the Building Act 1993 and the Plumbing Regulations 2018, to install the replacement roof in accordance with the Deemed to Satisfy Standards AS/NZS 3500.3 2018 and/or SA HB39:2015.*
- 7.2 *The defects listed above, show that the installing plumber has not installed the defective items in accordance with these requirements, and is therefore required to return and rectify these defects.*

8 VCAT Statement.

8.1 *In contemplation that this Report may be presented to the Domestic Building List of VCAT I state that:*

- 8.1.1 The details of my address, qualifications and experience are set out in the Curriculum Vitae included as Appendix 1.
- 8.1.2 My area of expertise is in the assessment and pricing of plumbing and building works.
- 8.1.3 I have made all the enquiries which I believe are desirable and appropriate, and no matters of significance which I regard as relevant have to my knowledge been withheld from the List.
- 8.1.4 I have a paramount duty to the Tribunal, and an overriding duty to assist the Tribunal.
- 8.1.5 This Report has been prepared in accordance with PNVCAT 2.

This Report Prepared and Signed by:

Varun Chandra
HolyMess Repairs
Licensed Plumber Building
Consultant Certified
Mediator MASBC, MIPA

Appendix 1

Costing

1

This pricing is based on the works to be done being carried out by a small competitive builder with access to the required trades, suppliers, and subcontractors. Each item is priced independently using trade rates where appropriate, and otherwise with a cost of direct labour and material provided. Plant hire charges are included where plant is required (H). A margin is added.

The quantity of hours for labour included in any item (L) allows for time to set up on site to carry out the work and clean up after. Where the item will take part only of the day and no other items which can be done that day by the same trade are included among those priced the amount allowed is increased to allow travel to and from the site. With rectification or completion of new work time has to be allowed for protection of existing work, furniture, and furnishings. This can increase the time required by as much as the order of 100%.

The labour rate used is intended to cover not only the wages and on costs of that labour, but also the supply and running costs of the tools generally required plus transport. A rate of \$95.00 per hour has been used for the general trades, \$90.00 per hour for labourers and \$110.00 per hour for the licensed trades, e.g. electrician and plumber. \$110.00 per hour has been allowed for painters and for plasterers with this figure to include material as well as labour.

The amounts allowed for material (M) includes an appropriate wastage allowance and rates at which small quantities can be purchased.

Because with rectification and completion work there is a greater element of uncertainty a loading is added for contingencies (C).

The margin added to each item is intended to cover preliminaries, overheads, supervision, and profit. A rate of 25% has been used generally.

GST is added to the total for each item at the rate of 10%.

Rectification of roof defects.

Collingwood.

Description	Rate	Quantity	Unit	Rate	\$
Remove debris from the roof.	L	2	Hrs	80	160.00
Hire hopper	H				450.00
					0.00
Defective soaker flashing front parapet.					0.00
Remove flashing and render.	L	2	Hrs	110	220.00
Replace flashing and overflash	L	3	Hrs	110	330.00
	M				160.00
Repair render to parapet.	L	4	Hrs	110	440.00
	M				160.00
Rectify defective sump, downpipe and overflow.					0.00
Remove sump and downpipe	L	2	Hrs	110	220.00
	M				75.00
Remove the ceiling and the boxing.	L	3	Hrs	110	330.00
Replace the sump	L	3	Hrs	110	330.00
	M				35.00
Reinstall the downpipe and install the overflow.	L	6	Hrs	110	660.00
	M				250.00
Replace the ceiling and enlarge the boxing.	L	30	Hrs	110	3,300.00
	M				250.00
					0.00
Rectify the chimney flashing.					0.00
Remove the flashing and the render	L	1	Hrs	80	80.00
	M				45.00
Replace the flashing	L	3	Hrs	110	330.00
	M				75.00
Replace the render.	L/M	4	Hrs	110	440.00
					0.00
Rectify the rainhead and the downpipe clips.	L	4	Hrs	110	440.00
	M				125.00
					0.00
					0.00
				Sub Total	8,905.00
			Contingencies	10%	890
					9,795
			Margin	25%	2,448
					12,243
			GST	10%	1,224
				Total	13,467

Appendix 2

Documents

SECTION 5 ROOF DRAINAGE

5.1 SCOPE OF SECTION

This Section sets out guidelines for the manufacture and fitting of internal and external metal gutters, downpipes, sumps and rainheads.

Although box gutters, valley gutters and soaker gutters are all forms of internal gutter, they are each discussed separately for the sake of clarity.

Siphonic drainage systems are site-specific roof stormwater drainage systems outside the scope of this document. They are designed by a manufacturer of the system for specific application. Siphonic drainage systems, associated gutters, overflow provisions and auxiliary components are to be designed and installed in accordance with the hydraulic engineers design specifications in line with the manufacturer's specifications.

5.2 MATERIALS

AS/NZS 2179.1 provides requirements for materials, particularly with respect to the compatibility of materials in contact with run-off from the roof (see also Section 2).

In addition, the following criteria, summarised from AS/NZS 2179.1, are to be applied for all roof drainage components:

- (a) *Minimum thickness of sheet material*—to be as given in the appropriate Tables in Section 2.
- (b) *Expansion components*—to be installed so that longitudinal expansion and contraction does not damage any components, joint or accessory.
- (c) *Sizing of components*—as specified in AS/NZS 3500.3 or AS/NZS 3500.5.

The jointing of components is to be as stated in Clause 5.8.

5.3 BOX GUTTERS UP TO 600 mm

5.3.1 Overflow provision and size

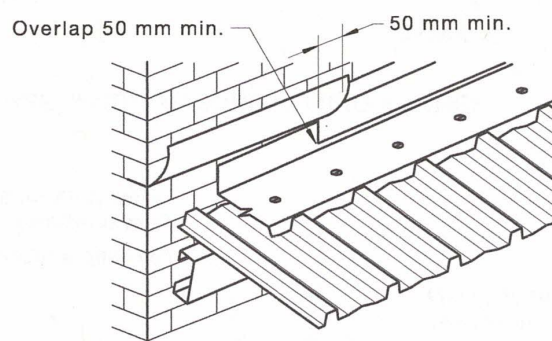
To protect buildings from a total or partial blockage of outlets, downpipes or stormwater drains, it is essential that box gutters discharge all roof water clear of the building via overflows. To ensure that adequate overflow provisions are made and any surcharge is accommodated, the overflow weir of any rainhead is to be not less than 25 mm below the sole of the gutter discharging to the rainhead. Box gutter sumps are to be fitted with overflow ducts, overflow channels or high capacity overflow devices [see Figure 5.3.1(a)].

Particular attention is to be paid to the following (see Figure 5.3.1):

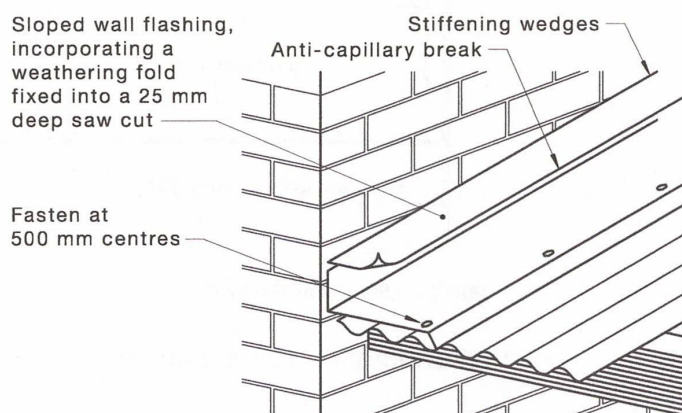
- (a) The size of overflows are to be calculated in accordance with AS/NZS 3500.3.
- (b) Overflows are to be terminated in such a way as to prevent damage to buildings and property.
- (c) The hydraulic capacity of overflow devices are to be not less than the design flow for the associated gutter outlets and discharge to atmosphere.

NOTE: For the design of appropriate overflow devices such as rainhead, sump/side overflow and sump/high capacity overflow devices, see AS/NZS 3500.3.

- (h) On completion of the installation of all flashings and cappings—
- (i) all debris to be removed from the roof;
 - (ii) all traces of cement and mortar to be washed off; and
 - (iii) excess sealant protruding from any roof component or roof covering, including flashings and cappings, to be removed.



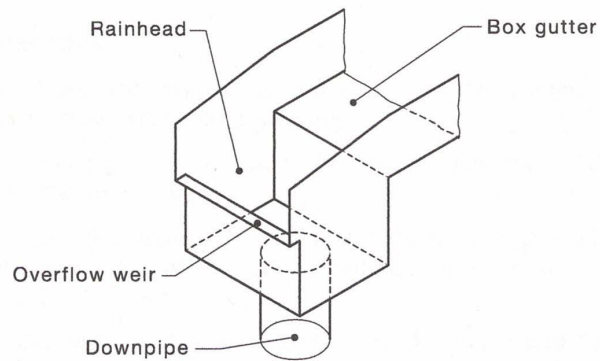
(a) Parapet flashing



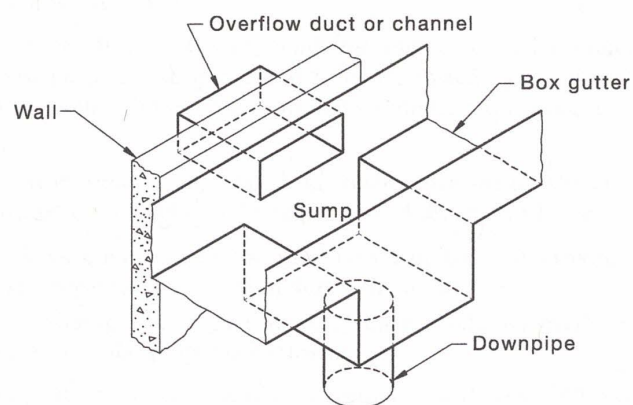
(b) Sloped wall flashing

NOTE: This Figure is reproduced in adapted form with permission from BlueScope Steel Limited trading as BlueScope Lysaght.

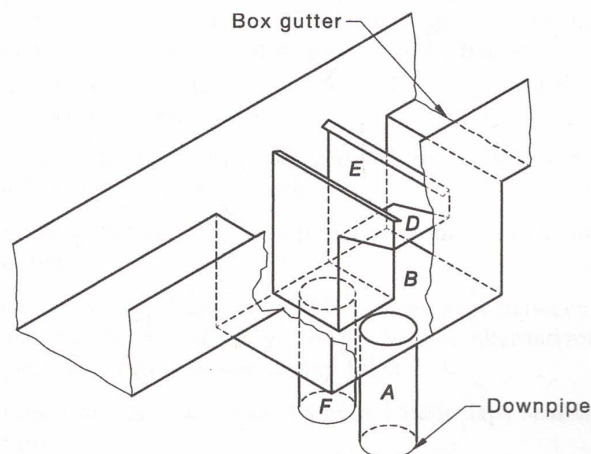
FIGURE 8.4(A) WALL AND STEP FLASHINGS



(a) Rainhead



(b) Sump/side overflow device



(c) Sump/high capacity overflow device (see AS/NZS 3500.3)

NOTES:

- 1 Layout of sump/side overflow device may have to be varied due to constraints [see Figure 5.3.1(b)].
- 2 Where desired, the sides of the sump/high-capacity overflow device may be perforated to flush the downpipe (F), as shown in illustration (c).
- 3 The normal outlet may be moved longitudinally to enable better inspection and maintenance access.

FIGURE 5.3.1 OVERFLOW PROVISION