VICTORIAN BUILDING AUTHORITY

Fact sheet

June 2024

Plumbing: Common Plumbing Enquiries

Q&A

The following answers have been provided to questions asked during the Plumbing: Common Pluming Enquiries webinar on 16 May 2024.

The answers provided are correct as of 31 May 2024.

Where can I find a copy of the presentation slides?

A copy of the presentation slides and recording of the webinar are available from the VBA website.

The Building Act refers to a 'plumbing inspector', who is that person?

A plumbing inspector means a person appointed as a plumbing inspector under the section 221ZZY of the *Building Act 1993* & the Authority is satisfied that the person to be authorised is appropriately qualified or has successfully completed appropriate training.

When we have a 45 pitch roof and the regulations since 2022 need the sarking 25mm into the gutter, how are plumbers going to walk on the batons having the sarking above it and be safe? This is an OH&S issue.

For information on workplace health and safety please contact WorkSafe Victoria.

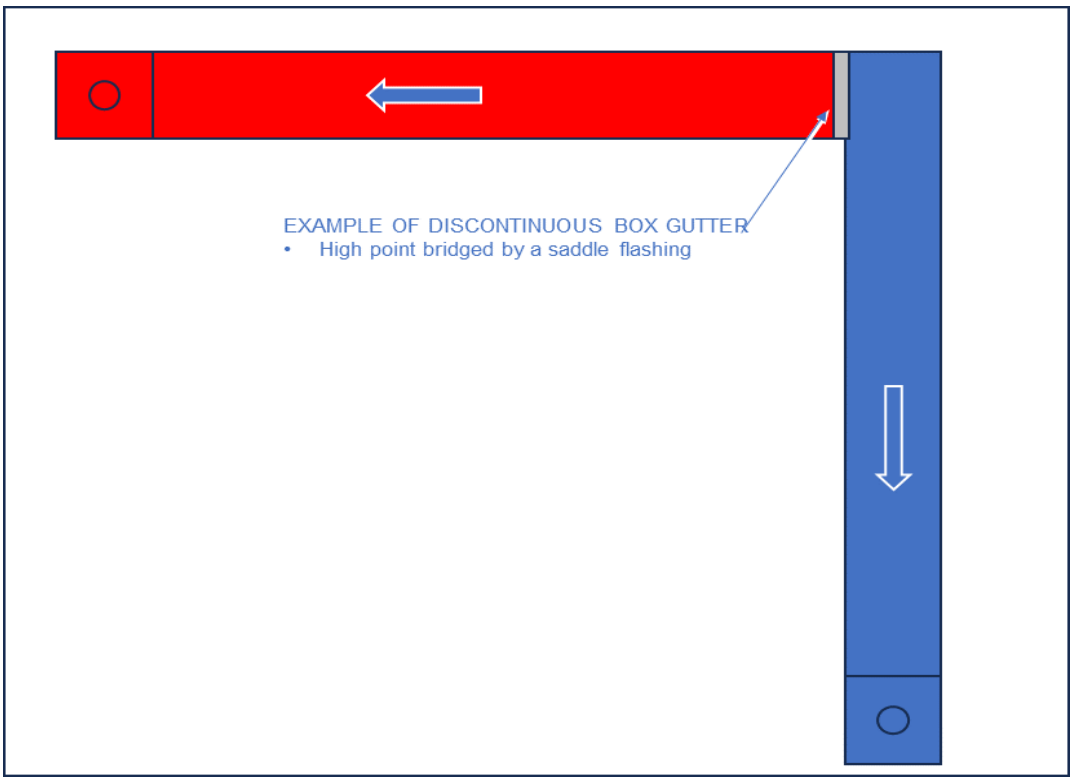
NCC Volumes 1 and 2 (Building Code of Australia) are not considered as a part of the regulatory framework for plumbing. As the building surveyor has no jurisdiction under Volume 3 – Plumbing Code of Australia (PCA), can you please advise who is the appropriate authority/relevant statutory authority in relation to performance solutions under the Plumbing Code of Australia?

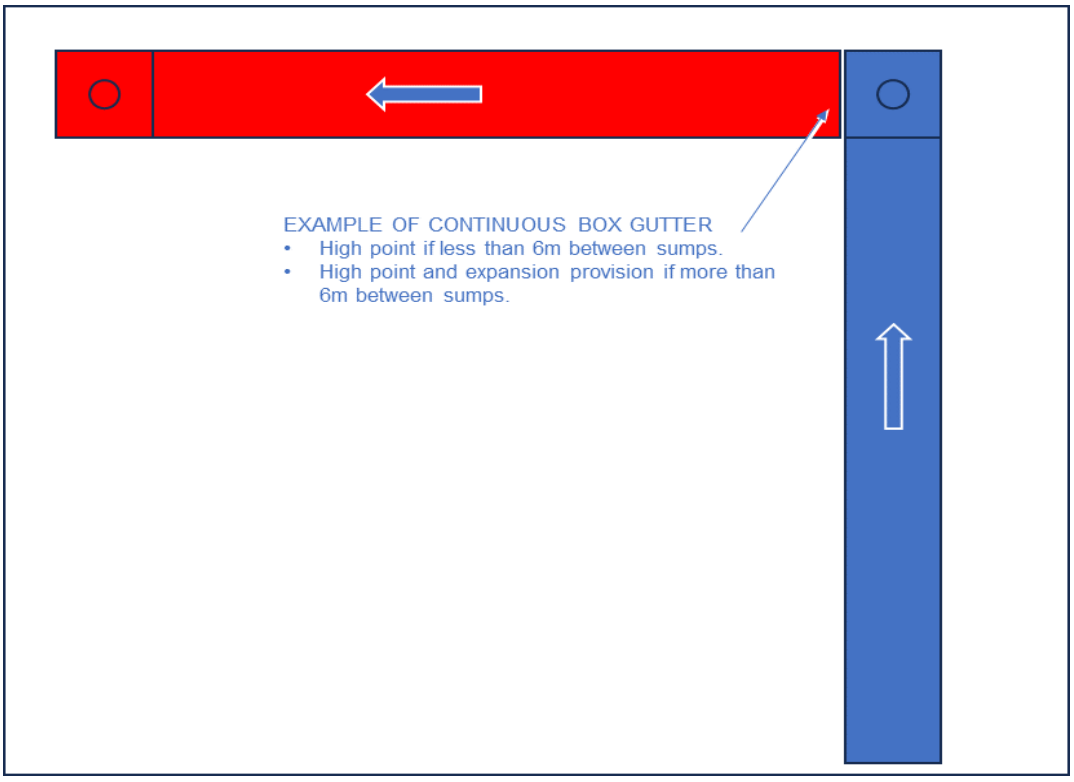
The plumber designing and installing a performance solution is responsible and accountable for that performance solution meeting the required performance standards. Ultimately, as the PCA is incorporated into the Plumbing Regulations 2018, the VBA is the appropriate authority/relevant statutory authority in relation to performance solutions in the context of the Victorian regulatory framework.

VICTORIA State Government

If there is a change in the direction of a box gutter, which is at the high point, i.e box gutter falls are away from change in direction, is there a requirement of sump at the change of direction?

There are caveats to this answer. However, generally speaking a change of direction can be made at the high ends or high and low ends where the gutters are individual (non-continuous) gutters that are bridged by a saddle flashing, and each are individually graded to their own point of discharge.





When working with metal pipes, is a brass union an acceptable method of connecting a copper pipe to a steel pipe? (As a means of preventing galvanic corrosion.) If so, which code or guideline discusses this?

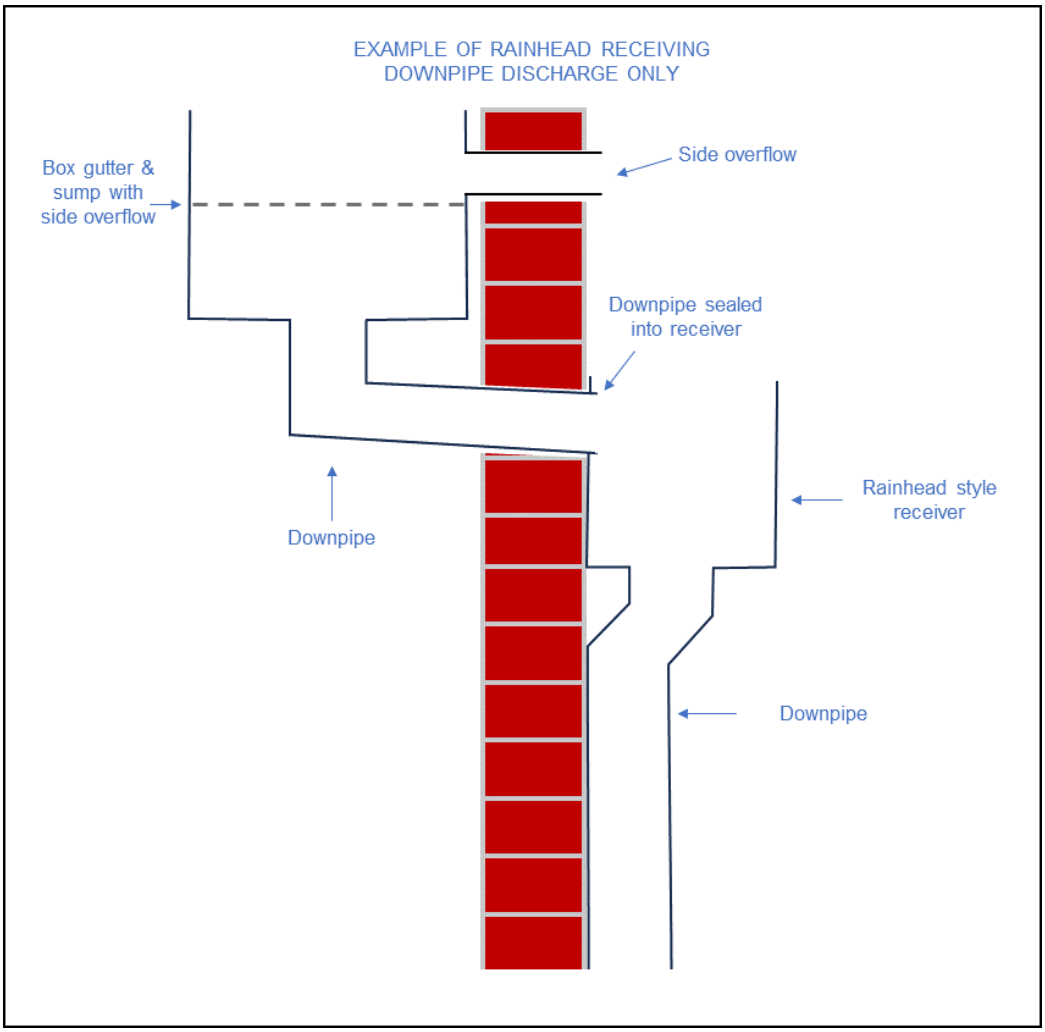
Depending on the class of work, the primary referenced standards will typically include a section, table or secondary referenced standard for acceptable jointing methods.

In respect to rainheads, we were recently advised from VBA that they can vary from Fig I2 of AS3500.3, when a downpipe from a sump discharges into them (as opposed to from a box gutter). The reason given was that there is no prescribed standard for the downpipe to be left open – and the rainhead in that instance would more so act like a receiver of discharge – and accordingly it is an approved method of termination.

However, webinar did not state that as it suggested no circumstance exits for a rainhead to be closed at its front / weir? Can you please elaborate.

The general method for sizing of box gutters discharging to rainheads requires rainheads to be left open above the weir.

Where a box gutter discharges to a sump, in accordance with the standards, and a rainhead is installed to receive the downpipe from the sump only (no box gutter entering the rainhead), the rainhead does not need to meet the sizing requirements of the general method; as the sump design process requires the sump to be fitted with it's own side or high capacity overflow. This means the rainhead is in addition to the requirements for the downpipes provided it does not diminish in the direction of flow or allow water ingress back into the building.



Is there any intention for regulations to move away from referencing the handbooks as a prescribed standard, and to acknowledge AS/NZS 3500.3 for stormwater?

Not at this stage. The Victorian Plumbing Regulations 2018 have adopted HB39, however we do have a Victorian variation in NCC Vol 3: VIC E3D2 (b), where there are any conflicts between AS/NZS 3500.3 and SA HB 39, AS/NZS 3500.3 prevails.

I'm a draftsperson within an engineering office that does the design of Hydraulics, but I don't have the knowledge to do the design. With no prior qualification/certificate, and without doing a full plumbing course, what course(s) can I do to learn to 'design' Hydraulic systems?

It is best to contact a registered training organisation, i.e. University or TAFE or search through: https://training.gov.au/

Where a sump is located at a corner to remove the change of direction requirement, what size sump is required i.e. side overflow sump 400 x width of the box gutter?

Where a box gutter and sump form a corner, the General Method of sizing and all relevant requirements of AS/NZS3500:3 shall be applied, alternatively, a performance solution is required to demonstrate compliance with the performance requirements of NCC Vol 3: Section Vic Part E3.

That clause only states: 3.8 BALCONY AND TERRACE AREAS
Systems for draining balconies and terraces shall be designed for—
(a) a 20 year ARI rainfall intensity; and
(b) a 100 year ARI rainfall intensity for overflow.
It doesn't specifically state that overflows must be provided.

The compelling requirements for balcony drainage outlets are given mandatory affect by being expressed in a mandatory term using the word "shall".

When will all the VBA Practice Notes be available?

The Practice Notes are allocated an order of priority and the VBA endeavours to review them as quickly as possible.

If there are design documents related to the certificate, does one need to be as specific as the example shown in the webinar, or could they reference the drawings?

The more information you can provide, the better. The VBA360 certificate system has the ability to accept attachments or you could provide more detail under the installation section.

Would it not be safer and less likely for leaks or loss of capture, if the box gutters were continuous at the high ends of the box gutter, where there is a change in direction?

Changes of direction in box gutters are not permitted in clause 3.7.6 (g) & are required have a constant longitudinal slope between 1:200 and 1:40. Where possible box gutter joints should be kept to a minimum unless the box gutter is allowing for expansion provision as per AS/NZS3500:3 clause 4.3.2 & table 4.3.2. By minimising the amount of joints & providing a constant gradient to a box gutter this should eliminate the amount of pooling in the gutter also depending on the support of the box gutter.

Can a waterless trap be used in a wall space, with no access cover?

No, traps are required to be accessible - clause 6.5.1 AS/NZS3500:2

Can waterless trap be used in floor waste?

No, waterless traps cannot be used in a floor waste gully. Refer to AS/NZS3500:2: Clause 4.6.3 Maintenance of water seal.

Does an oblique junction in a drain need to be inclined 15 degrees if it is upstream of the water closets i.e only servicing grey water fixtures?

Yes, Clause 4.9.1.2 of AS/NZS3500:2 says - Where a junction is used to make the connection of a DN 100 branch drain to another DN 100 drain, the 15 degree incline is required.

If the box gutter at the change of direction has the minimum depth as sized by AS/NZS 3500.3, where is the issue with the water flowing away from the corner?

The General Methods of sizing box gutters assume all aspects of the sizing methods to have been followed which will lead to a predictable result. As the refenced standard AS/NZS3500:3 require gutters to be straight, the introduction of other factors such as hydraulic jump caused by a change of direction will affect the flow of water, leading to a result that cannot be accurately predicted without testing and analysis.

When does a certificate have to be issued for a backflow annual test?

A compliance certificate must be issued when the total value of plumbing work is $750 or more. This includes all plumbing materials & associated labour costs and GST.

Is the building of shared property drains limited to body corporate style developments?

Shared property drains can be common drains such as in an owners corporation scenario or a combined drain which connects 2 or more drains to a common point of discharge.

When laying a sewer drain on a “P” class site, who is a suitably qualified person?

Where a drain is to be laid in "P" class soil, advice should be sought from a suitably qualified engineer.

Where does it state that the front of a rainhead must be removed other than in the figure located in an appendix?

The Preface of AS/NZS 3500.3:2021 states - "Notes or footnotes to tables or figures that are expressed in mandatory terms are deemed to be requirements of this document", Figure H.2 is a normative figure which depicts a compliant rainhead, note 4 to this figure requires rainheads to be left open above the weir, which is expressed in a mandatory term using the word "shall".

Why can a sump have a rectangular slotted overflow, but a rainhead cannot?

The General Method for sizing of box gutters discharging to rainheads is different to the General Method for sizing of box gutters discharging to a sump with a side overflow.

Confirming if R0.6 ductwork can be used in the PosiStruts in between the floors of a dwelling?

Clause 13.7.4(3) of the ABCB Housing Provisions Standard 2022 makes the following provisions for reducing the R-Values set out under Clause 13.7.4(1) and states- "The requirements of (1) do not apply to heating and cooling ductwork and fittings located within the insulated building envelope including a service riser within the conditioned space, internal floors between storeys and the like". As condensation forming on the outside of ducts can cause problems some insulation is always a good idea.

For further information or clarification please contact the Technical and Regulation Team via technicalenquiry@vba.vic.gov.au

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