



Waterproofing of Wet Areas



This webinar will start shortly to allow participants to join.



The VBA respectfully acknowledges the Traditional Owners and custodians of the land and water upon which we rely. We pay our respects to their Elders past and present.

We recognise and value the ongoing contribution of Aboriginal people and communities to Victorian life.

We embrace the spirit of reconciliation, working towards equality of outcomes and an equal voice.

Welcome

Today you will hear from:

Christian Williams

Technical & Regulation

Senior Technical Advisor

**Practitioner
Education
Series**



As Victoria's Building and Plumbing Regulator, we **safeguard Victoria's future liveability, promoting safe, compliant buildings, built to last**

Our role is not to set policy, but to **support industry to understand and comply with the rules.**

Our Practitioner Education series **helps support the industry by providing practical insights, evidence-based strategies and useful resources.**

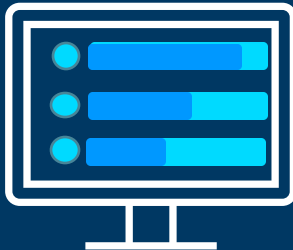
Housekeeping



Today's session is **recorded** and will be available



Questions can be submitted and voted on via the Q&A function



We will conducting **live polls** today, which will automatically appear on your screens

Purpose of this webinar

- To assist the industry preparing for the changes coming in on **1 May 2023**.
- Reduce the risk of non-compliant installation of waterproofing systems.
- Provide an understanding of the key changes for waterproofing for NCC 2022.

Learning goal

- At the conclusion of this webinar, viewers will be familiar with the waterproofing requirements applicable from 1 May 2023.
- Will be able to identify the key areas to achieve compliance and in turn reduce defects.



What we will cover

1. National Construction Code (NCC) 2022
2. Australian Standards
3. Performance Solutions
4. Building Permit Requirements
5. Question and Answers session



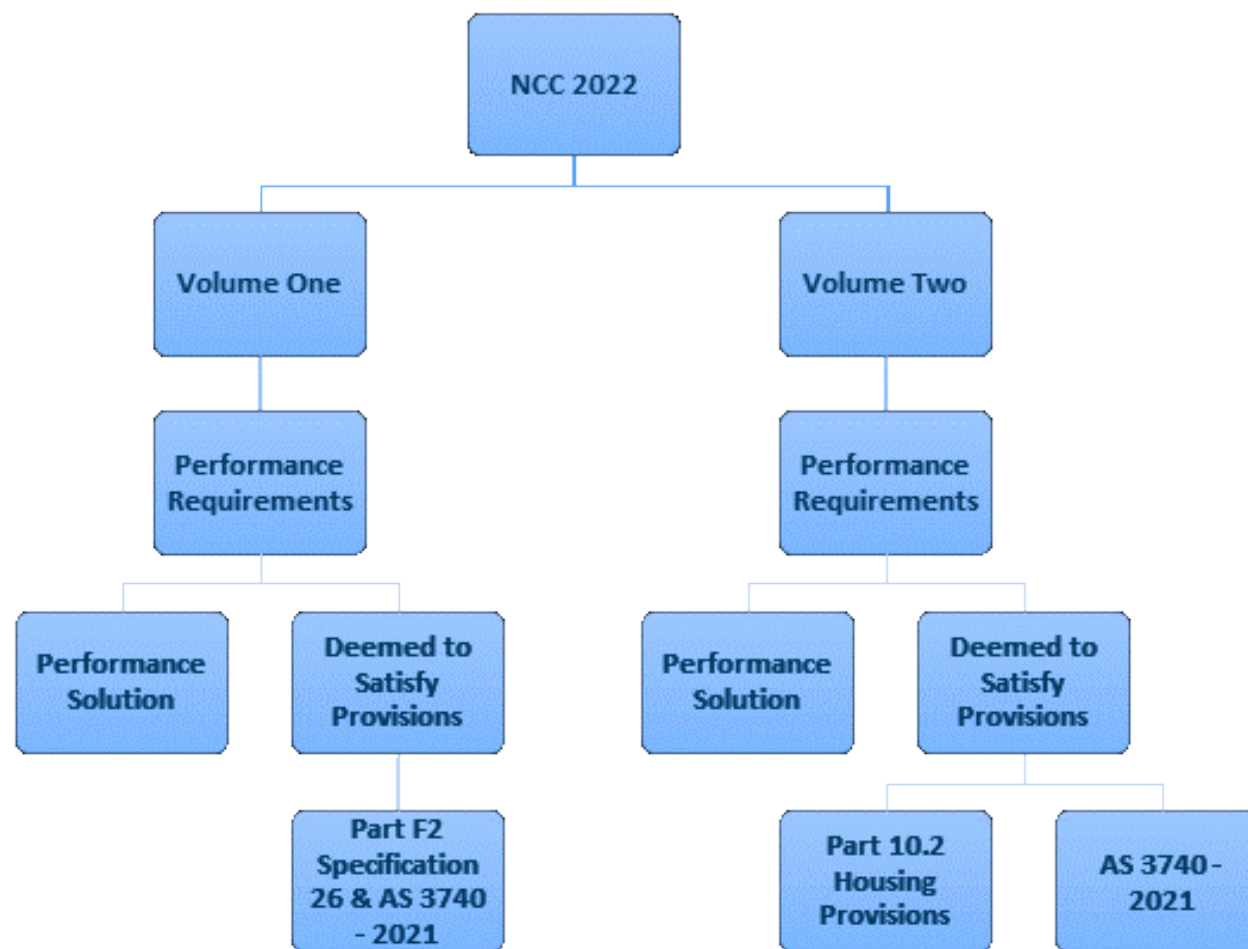
National Construction Code (NCC) 2022

New Referencing System SPTC

Reference	Description	Example	
Section	B – Structure C – Fire resistance D – Access and Egress H – Class 1 and 10 buildings	H	Class 1 and 10 buildings
Part	Refers to the part of the Section.	4	The 4th part of Section H is titled ‘Health & amenity’.
Type	G overning requirements P erformance requirement O bjectives F unctional statement V erification method D eemed-to-Satisfy Provision S pecification	D	We know it is a Deemed-to-Satisfy Provision.
Clause	Clause number within Type group	2	Wet Areas
		H4D2	‘Compliance with Part 10.2 of the Housing Provisions or AS 3740 satisfies Performance Requirement H4P1 for Wet areas’

National Construction Code (NCC) 2022

Compliance pathways



NCC - Waterproofing

New waterproofing construction details in the Housing Provisions – similar to AS 3740:2021.

Areas to be waterproofed are still found in the ABCB Housing Provisions Standard 2022.



NCC - Waterproofing

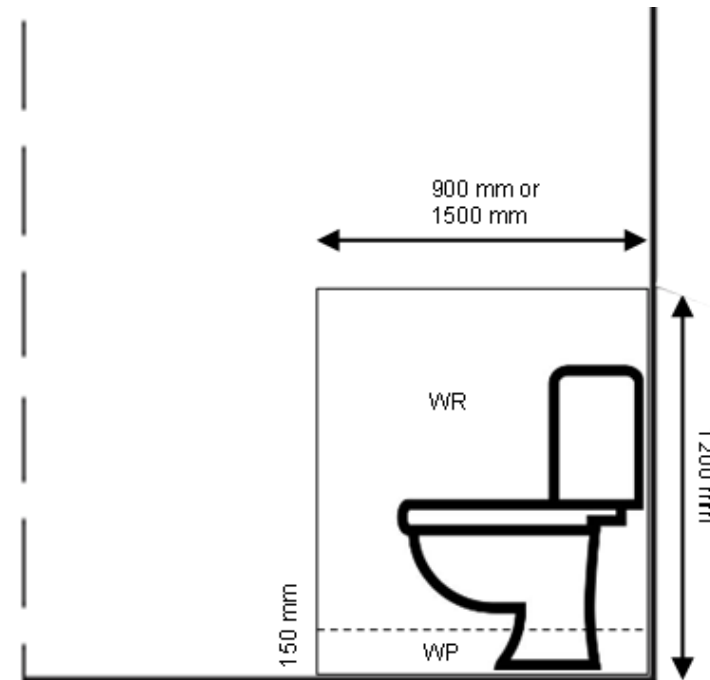
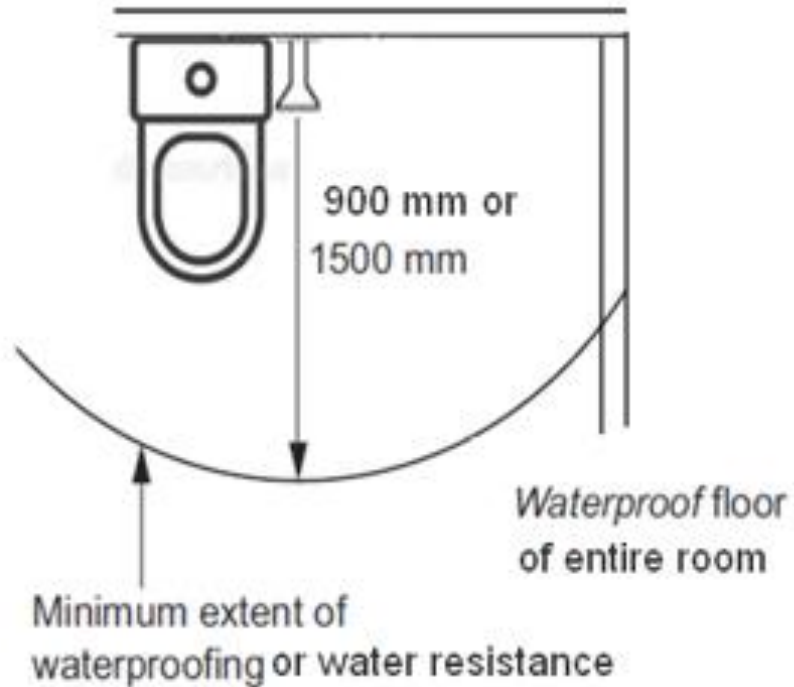
Handheld bidet sprays (New NCC 2022):

- Waterproof entire floor of room
- Waterproof 150mm up walls within 900mm
- Waterproof penetration
- Tile 1200mm up walls within 900mm



NCC - Waterproofing

Handheld bidet sprays (New NCC 2022):

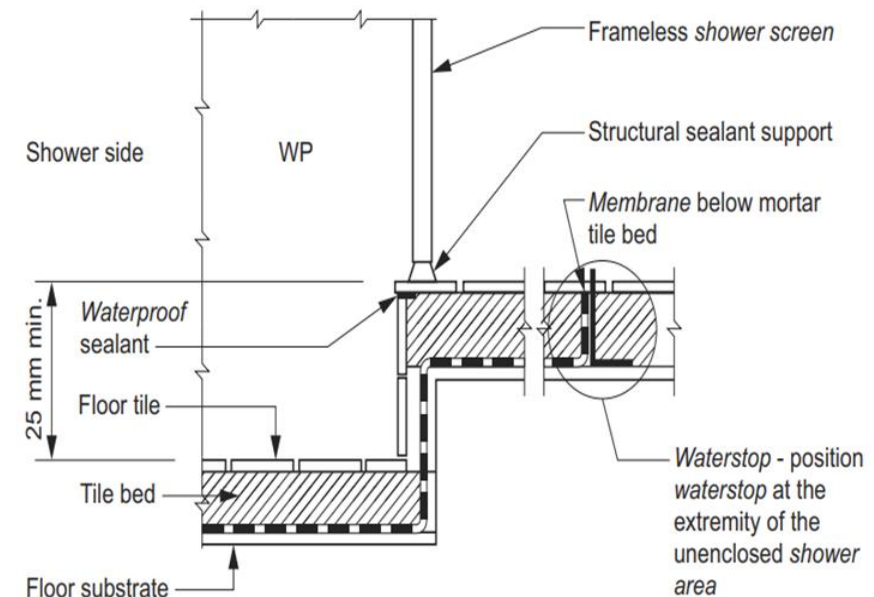
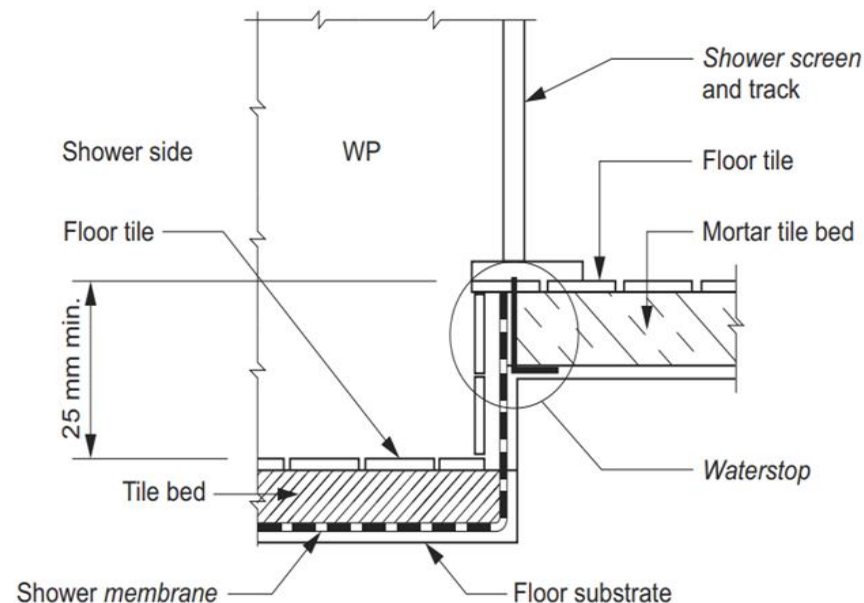


NCC - Waterproofing

Enclosed and Unenclosed stepdown showers (New NCC 2022)

Minimum 25mm step down from the highest finished floor level of shower area to the level outside the shower.

Part 10.2



NCC - Waterproofing

Floor Wastes

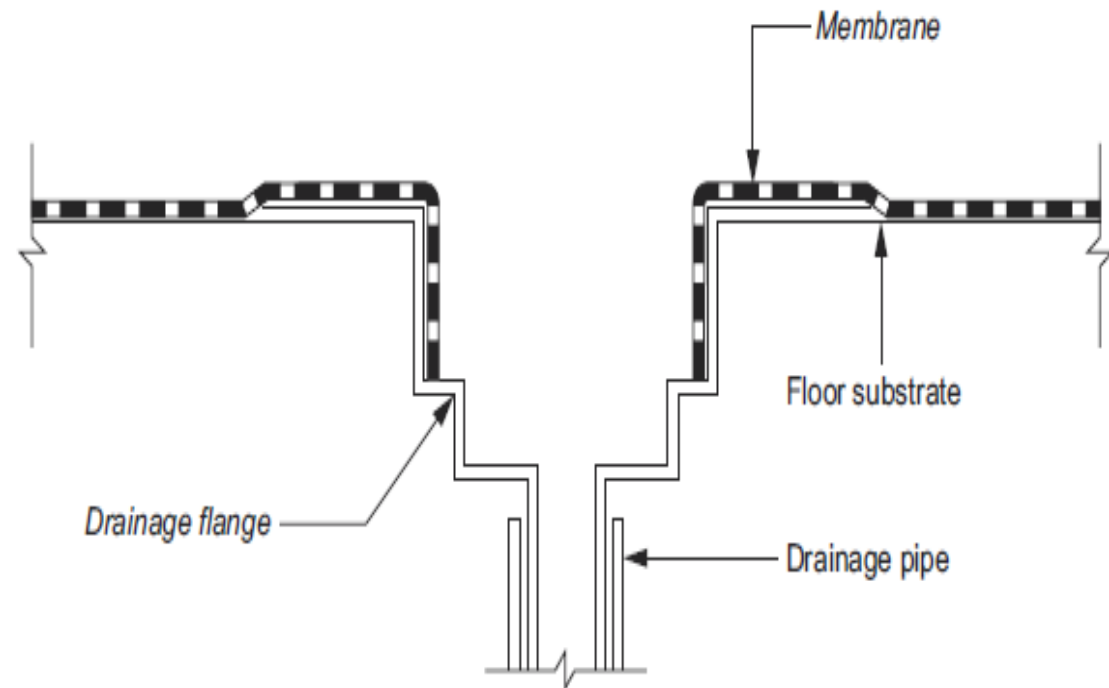
Class 1 buildings

- Concrete: may sit on top of concrete or tile bed.
- Other floors: recessed into floor substrate or tile bed.

Class 2-9 buildings

- Must be recessed into the floor.

Typical membrane termination at drainage outlet



Reproduced from NCC 2022 Part 10.2 of the ABCB Housing Provisions Standard 2022, Australian Building Codes Board

Livable Housing Design

Hobless or Step Free Showers

- Shower that is provided must be hobless and step-free.
- 5 mm lip is permitted to comply with waterproofing requirements.



AS 3740 Wet Areas requirements

Shower Area

- Waterproof entire shower walls must be 1800 mm above floor substrate.
- Floor wastes need to fall:
 - Min 1:80 (12.5mm over 1m)
 - Max 1:50 (20mm over 1m)



AS 3740 Requirements

Falls to Floor Wastes

- AS 3740-2010 allowed 1:100 in showers with vertical separation.
- AS 3740-2021 and housing provision requires minimum 1:80 fall.



AS 3740 Requirements

Material and Installation (New)

- Water-resistant substrate of floors: **Particleboard** sheeting to AS/NZS 1860 is **not allowed** to be used as a material under the 2021 Standard as it has been removed.
- To ensure the integrity of a membrane, under the 2021 Standard, a visual inspection shall be conducted prior to installation of any overlaying finish.

The previous version did not mention this requirement.

AS 3740 Requirements

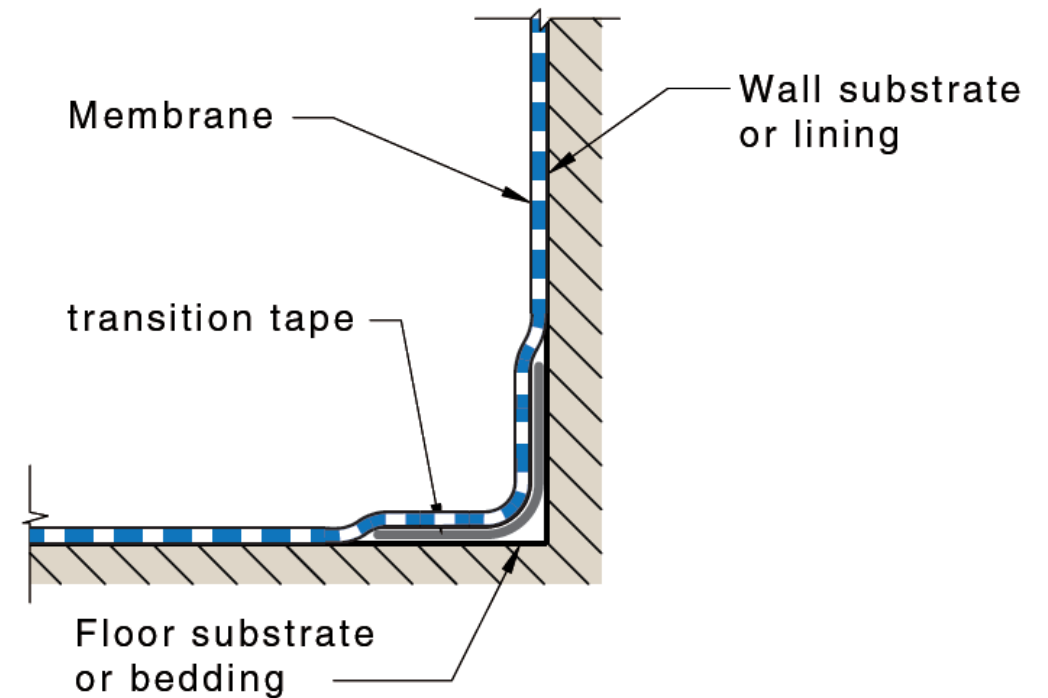
Other Changes

- Addition of coloured figures
- Expansion of surface preparation requirements
- Expansion of shower and bath scenarios
- Expansion of permitted materials

Waterproofing of Wet Areas

Bond Breakers - AS 2010 vs 2021

- 2010 - Minimum bond breaker 75mm when elongation less than 60%.
- 2021 - Minimum bond breaker 100mm when elongation between 10% to 50%.



(a) Class I or II membrane

Waterproofing of Wet Areas

Membrane to drainage connection - AS 2010 vs 2021

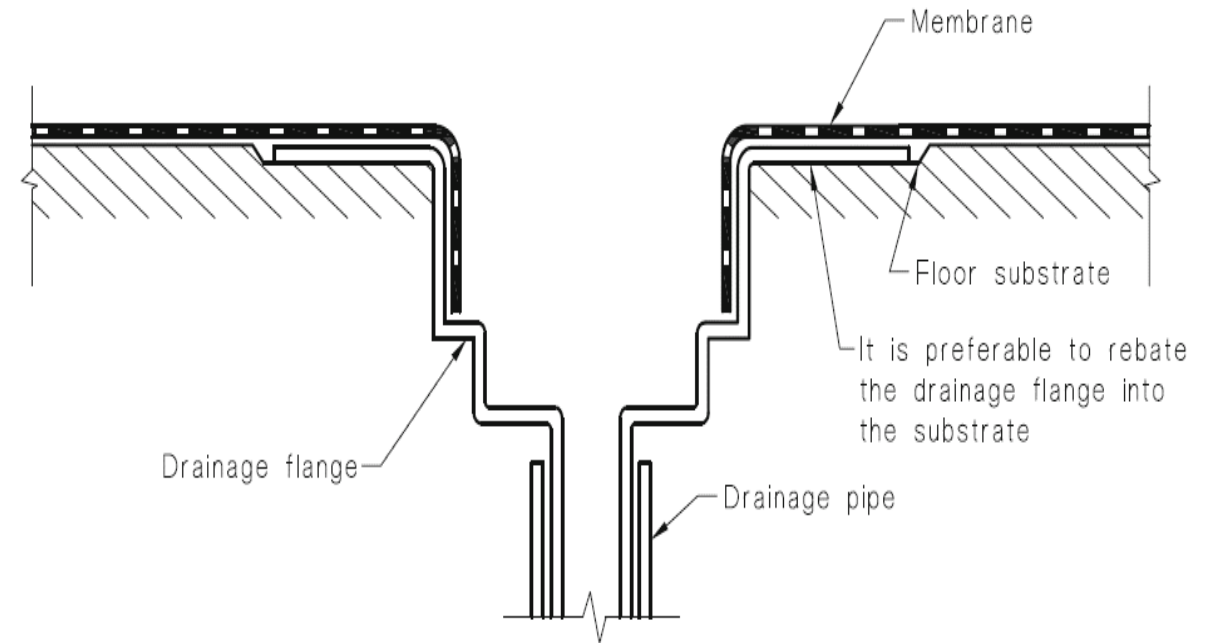
- Termination to a drainage channel – 2010 version.
- Linear drainage connections – 2021 version.
- Membrane shall be installed above or below the tile bed or screed 2021.



Waterproofing of Wet Areas

Membrane to drainage flange - AS 2010 vs 2021

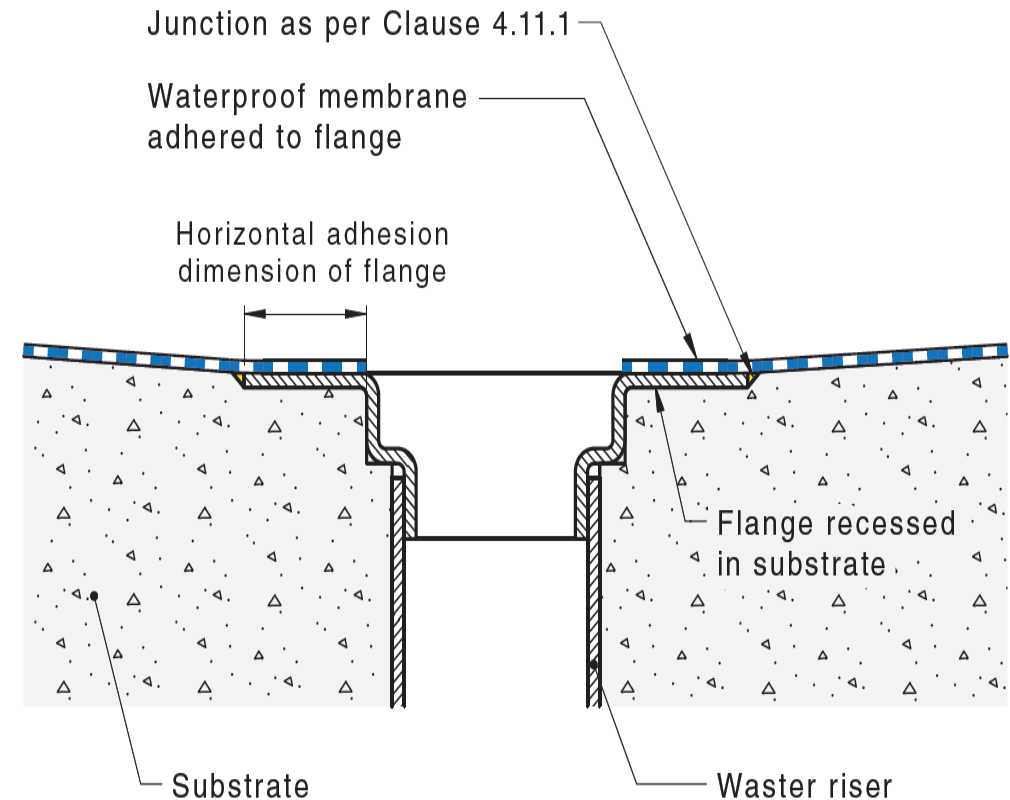
- A drainage flange is installed with the waterproofing membrane and terminated at the drainage flange – 2010 version.



Waterproofing of Wet Areas

Membrane to drainage flange - AS 2010 vs 2021

- Waterproofing membrane is bonded onto the leak control flange and the membrane is terminated horizontally or vertically at the flange – 2021 version.



Waterproofing of Wet Areas

Installation of Bathroom Waterproofing - AS 2010 vs 2021

AS-2010	AS-2021
Waterproofing to 25mm above the finished floor	Waterproofing to 150mm above the structural floor (New)
No waterproofing to steel frame architrave	Waterproofing 3 – 5mm LAP to steel frame architrave
Particleboard flooring permitted as a substrate material	Particleboard flooring no longer can be used as a substrate material
Waterproofing to terminate to the waterstop to create waterproof seal	Waterproofing extends to waterstop aluminum angle

Waterproofing of Wet Areas

3 Categories of Wet Areas – AS 2021

- **Category 1 – High Risk:** Enclosed and Unclosed shower area.
- **Category 2 – Moderate Risk:** The entire bathroom area outside an unclosed shower area or outside unclosed shower over bath.
- **Category 3 – Low Risk:** Bathroom outside an enclosed shower area, bathroom without a shower area and laundry without a shower.

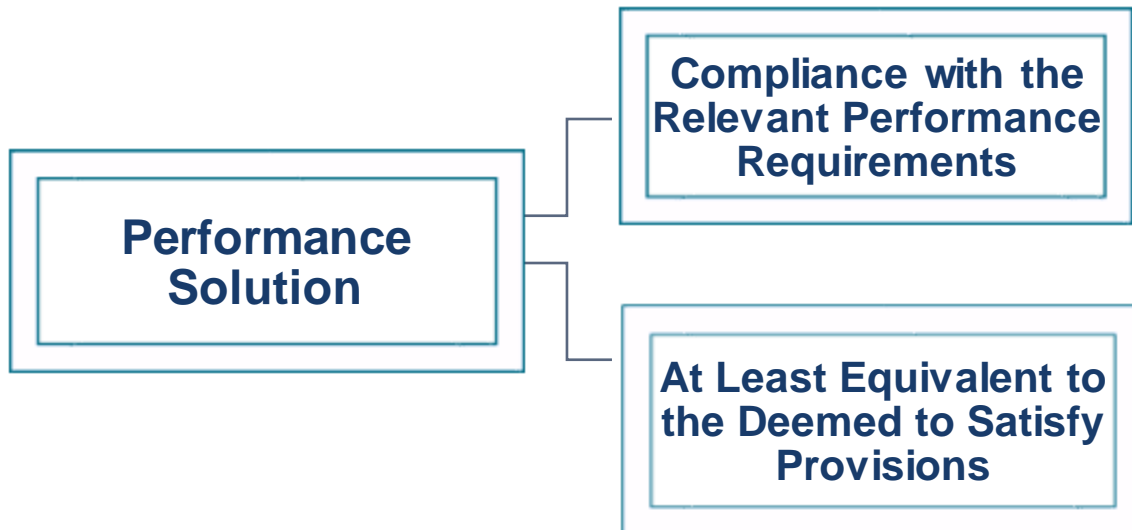
Waterproofing of Wet Areas

Requirements for Wet Area Falls – AS 2010 vs 2021

AS3740-2010	AS3740-2021
The minimum fall to waste of 1:100 for general bathroom floor.	Category 1 - Fall to the floor waste in a shower area, the minimum shall be 1:80
The minimum fall to waste of 1:100 for shower area with vertical separation . Other shower areas shall be a minimum of 1:80	Category 2 - Floor waste is installed adjacent to a shower area. Minimum fall shall be 1:100
	Category 3 - Shower shall be enclosed if no floor waste in the wet area. No requirements for fall and water shall be retained inside the wet area.

Performance Solutions

NCC Clause A2G2(1)



NCC Clause A2G2(4)

Prepare a performance-based design brief

Carry out the analysis

Evaluate results against the acceptance criteria

Prepare a final report

Performance Solutions

Wet Area Solutions

- Polished concrete floor
- May not meet DtS provisions
- Performance solution required



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Performance Solutions

Wet Area Solutions

- Timber flooring
- May not meet DtS provisions
- Performance solution required

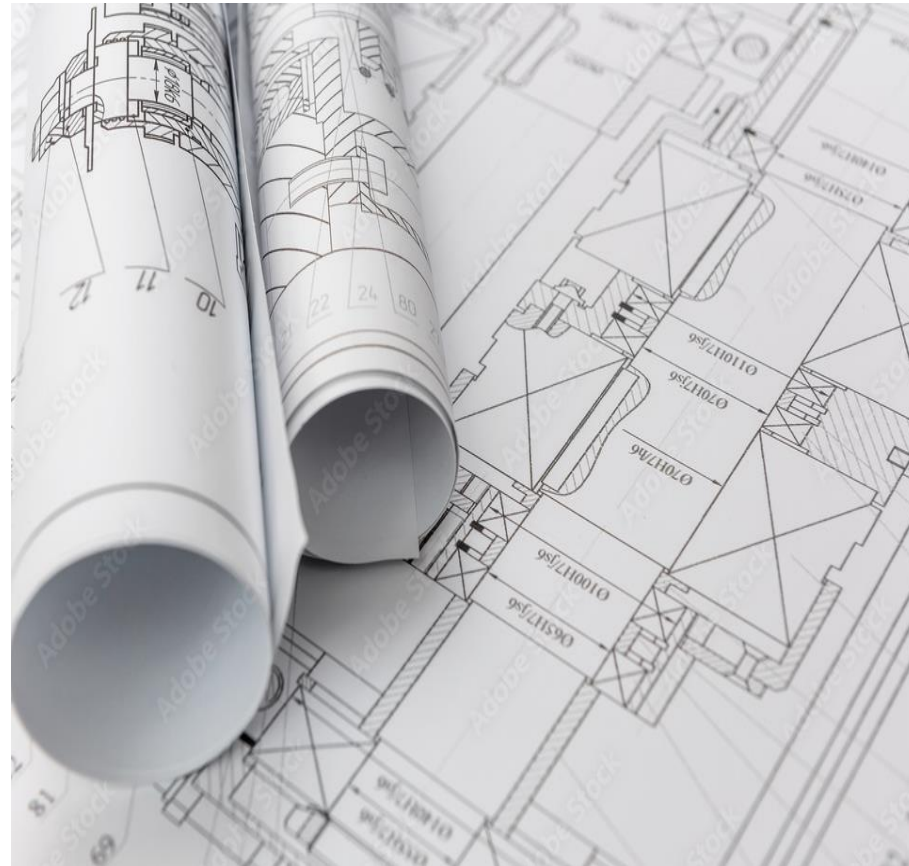


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Building Permit Requirements

Drawings

- Section details of Waterproofing treatment to be provided.
- Referencing AS 3740 with no details is insufficient.



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Building Permit Requirements

Documentation

- Evidence of suitability required – NCC Part A5
- Membrane test certificate
- CodeMark products
- Waterproofing – final sign off



Conclusion

To summarise, in the webinar today you have heard about:

- NCC 2022
- Housing Provisions and AS 3740 – 2021
- AS 3740 – 2010 to AS 3740 – 2021
- Performance Solutions
- Building Permit Requirements

From this webinar, you should now be familiar with the key changes for 1 May 2023.



Q & A



PRACTITIONER EDUCATION SERIES

Thank you