



Introduction to Condensation Management NCC 2022

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

Senior Technical Advisor
Technical and Regulation, VBA

**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 will be recorded and will be available on the VBA website.



Questions can be submitted via the Q&A function. For any questions that we don't have time to answer during the session, the questions and answers will be emailed to you after the webinar.



We will be conducting live polls today. These will appear on your screen.



This webinar is scheduled to run for 60 minutes, however in some cases we may run over time in order to cover all content.

Webinar questions



We do our best to answer as many of your questions as we can during the webinar.



However, due to the high volume of questions that we receive, we may not be able to answer your question during the webinar time.



Approximately two weeks after this webinar, you will receive an email with answers to all of the questions that were asked in this webinar.

We thank you for your patience.

Purpose of the webinar

Why is this webinar important?



This webinar outlines the new requirements for Condensation Management for NCC 2022.



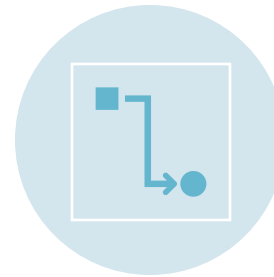
To prepare the industry for the upcoming changes to the Condensation Management provisions to be adopted on 1 May 2024.

Learning goals

After this webinar, you should be able to:



Have a better understanding of what's new for Condensation Management for NCC 2022.



Have a better understanding of the compliance pathways associated with Condensation Management

Today we will cover:

1. Condensation and condensation management
2. Comparison of NCC 2022 Volumes One and Two
3. Performance requirements and verification methods
4. Deemed to Satisfy provisions
 - 4.1 Deemed to Satisfy provisions: Volume One
 - 4.2 Deemed to Satisfy provisions: Volume Two



New Referencing System (SPTC) Section-Part-Type-Cause

Reference			
SECTION	PART	TYPE	CLAUSE
<p>B: Structure</p> <p>C: Fire resistance</p> <p>D; Access & egress</p> <p>H: Class 1 & 10 buildings</p>	<p>Refers to the part of the section</p>	<p>Governing requirements</p> <p>Performance requirements</p> <p>Objectives</p> <p>Functional statement</p> <p>Verification method</p> <p>DtS provision</p> <p>Specification</p>	<p>Clause number within Type group</p>

Example	
H	Class 1 & 10 buildings
4	4 th part of Section H: "Health & Amenity"
D	Deemed-to-Satisfy
9	Clause 9: condensation management
H4D9	Compliance with Part 10.8 of the Housing Provisions or AS 3740 satisfies Performance Requirement H4P7 for condensation management

Condensation & Condensation management



What is condensation?

As defined under NCC 2022:
the formation of moisture on the surface
of the building element or material as a
result of moist air coming into contact
with a surface which is at a lower
temperature.



What is the purpose of condensation management?



The intent is **to assist in the mitigation of condensation** within a building.



The installation of a condensation management system **may not prevent condensation**

Comparison of NCC Volume One to Volume Two



Performance requirements

VOLUME ONE	VOLUME TWO	COMPARISON
Applies to Class 2 buildings & Class 4 parts	Applies to Class 1 buildings	N/A
Performance requirement F8P1	Performance requirement H4P7	Identical
Verification method F8V1	Verification method H4V5	Identical

Deemed to Satisfy (DtS) Provisions

VOLUME ONE

Housing Provisions Standard

COMPARISON

F8D3 pliable building membranes

10.8.1 pliable building membranes

Identical

F8D4 Exhaust systems:

1. Space required for ducting to outdoor air where a space is provided for a ducted clothes dryer.
2. Make up air required for exhausts to comply with AS 1668.2.

10.8.2 Exhaust systems:

1. Ducting venting dryer to outdoor air only required if it **IS** installed.
2. Optional 14,000mm² opening to an adjacent room for make up air in lieu of AS 1668.2 (excluding venting dryers)

Slight difference

F8D5 Ventilation of roof spaces

10.8.3 Ventilation of roof spaces

Identical

Performance Requirements & Verification Methods



Performance requirements: Volume One

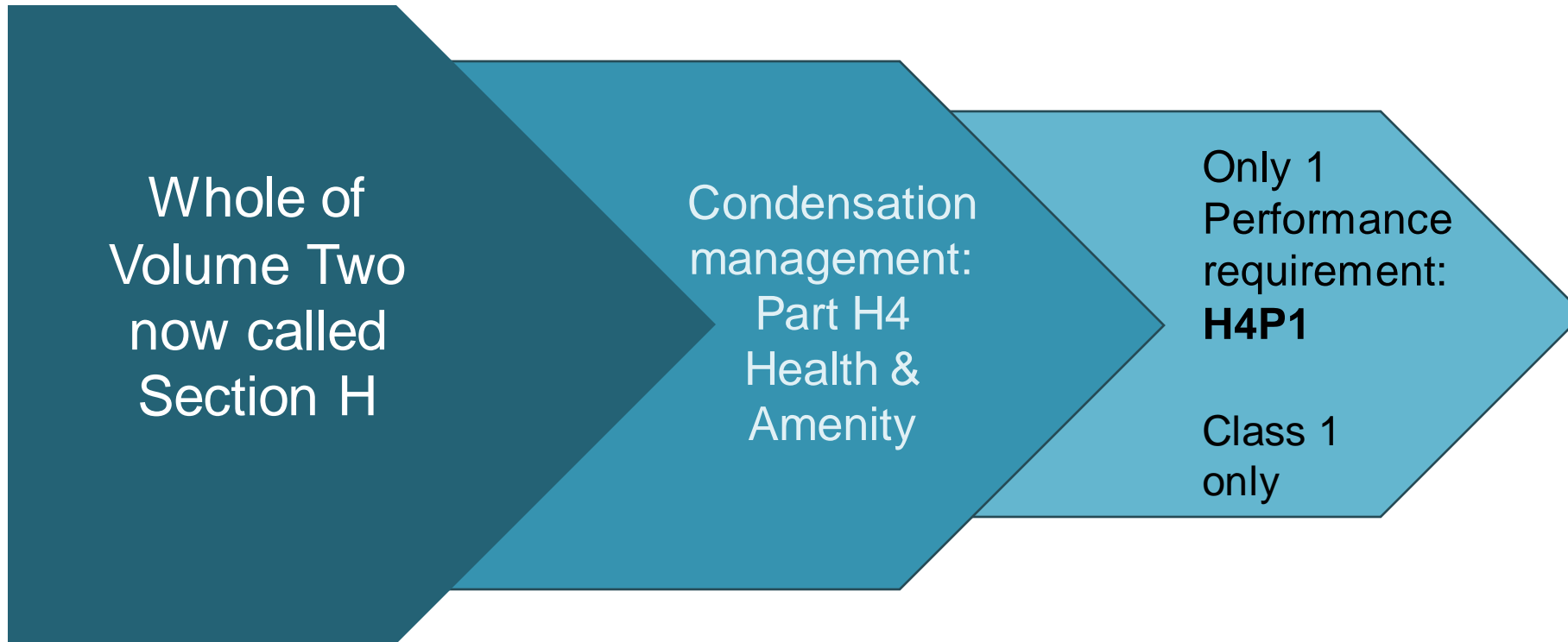
Not many changes for NCC 2022.



New Performance Requirement is:
F8P1 Condensation management



Only applies to:
a sole-occupancy unit (SOU)
in a Class 2 or Class 4 part of a building



No changes to this Performance requirement for NCC 2022

Verification methods



New Volume One Verification method

F8V1 Condensation Management

- Introduces a quantifiable method of compliance



Also **H4V5** under **Volume Two: identical to Volume One** so we will not discuss H4V5 in this webinar

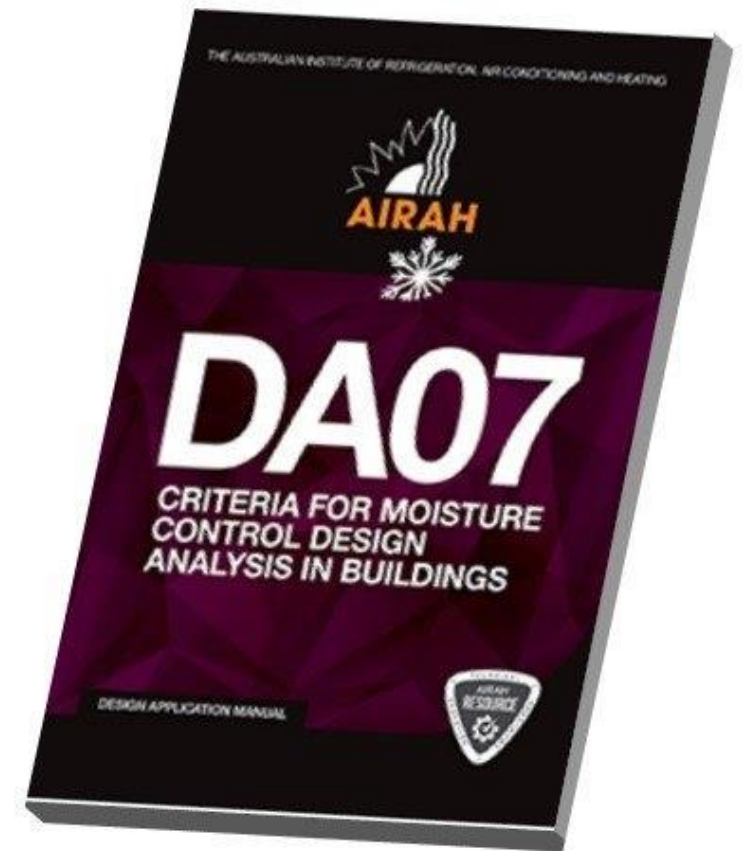


A2G2(2) Assessment Methods

Verification methods

Verification method F8V1

**AIRAH DA07: Criteria for Moisture Control
Design Analysis in Buildings (2021)**



AIRAH streamline
session : DA07

Quick quiz

Q1. What does the “SPTC” in the NCC referencing system stand for?

- a) Section, Part, Type Clause
- b) System, Part, Type, Clause
- c) System, Paragraph, Title, Clause

Q2. There are no changes to the performance requirements for condensation management under Volume Two for NCC 2022.

True

False



Quick quiz

Q1. What does the “SPTC” in the referencing system stand for?

A: 1. Section, Part, Type, Clause

Q2. There are no changes to the performance requirements for condensation management under Volume Two for NCC 2022.

A: True



Deemed-to-Satisfy (DtS) Provisions



Deemed-to-Satisfy (DtS) provisions

Some significant changes:



Volume One

Class 2 buildings and a Class 4 part of a building



Volume Two

Class 1



To be adopted on 1 May 2024

Volume One



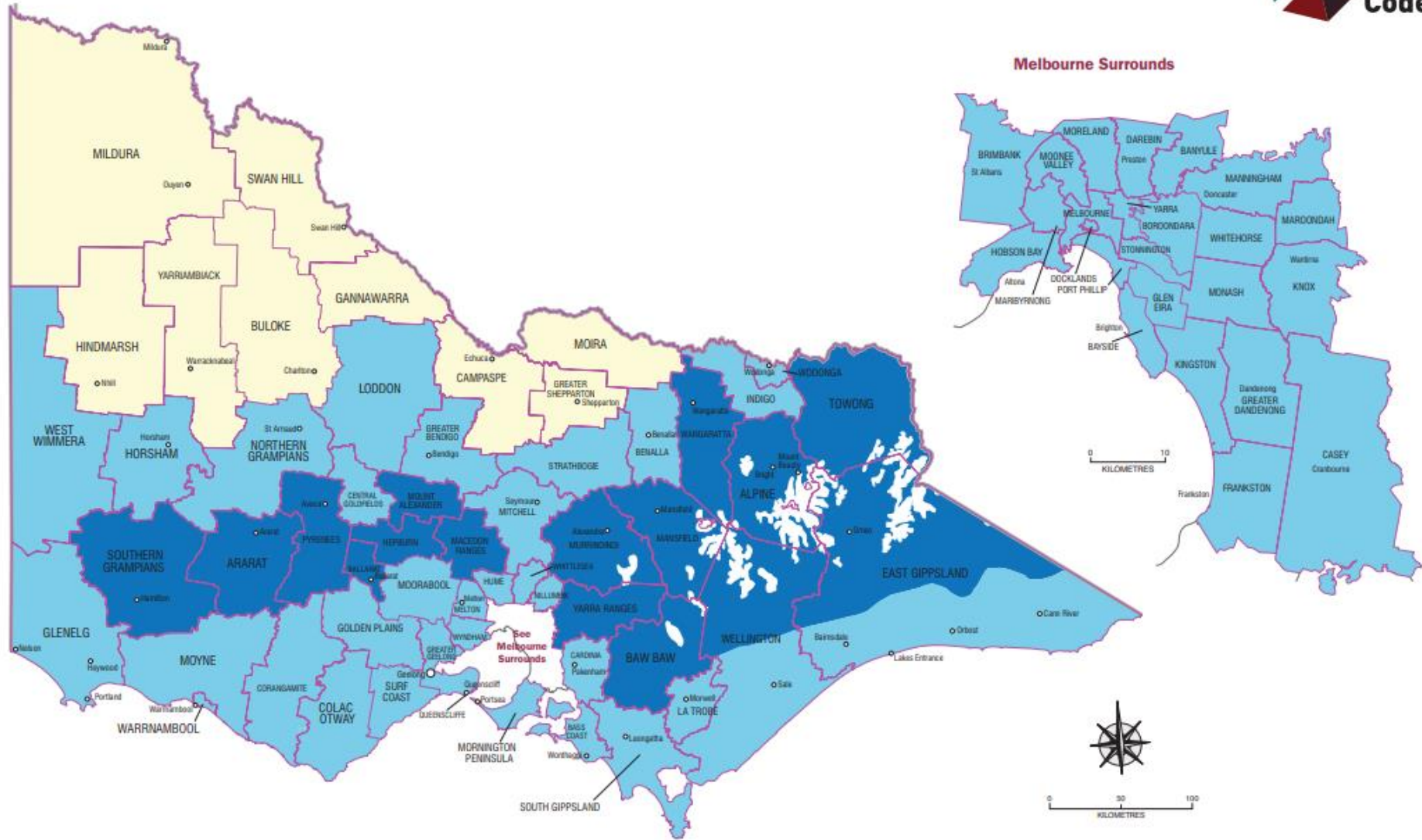
Deemed-to-Satisfy (DtS) provisions

- **F8D3 External wall systems:** pliable building membranes* (otherwise known as sisalation, reflective foil insulation or sarking)
- Pliable building membranes are now required to be vapour permeable in climate zones 4 & 5 in addition to zones 6, 7 & 8.



***Pliable building membrane** means a water barrier as classified under AS 4200.1 - 2012 Pliable building membranes and underlays - Materials.



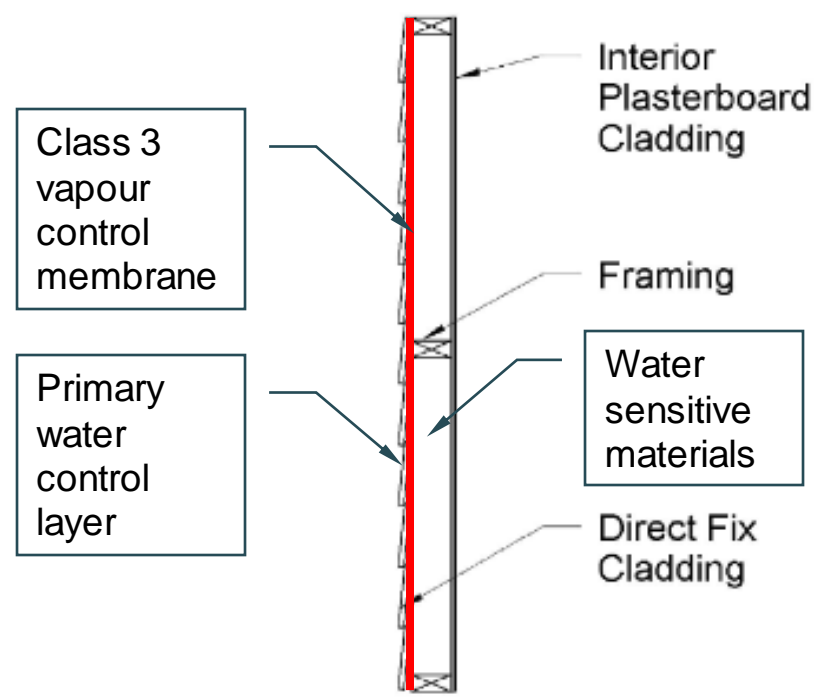


Climate Zones

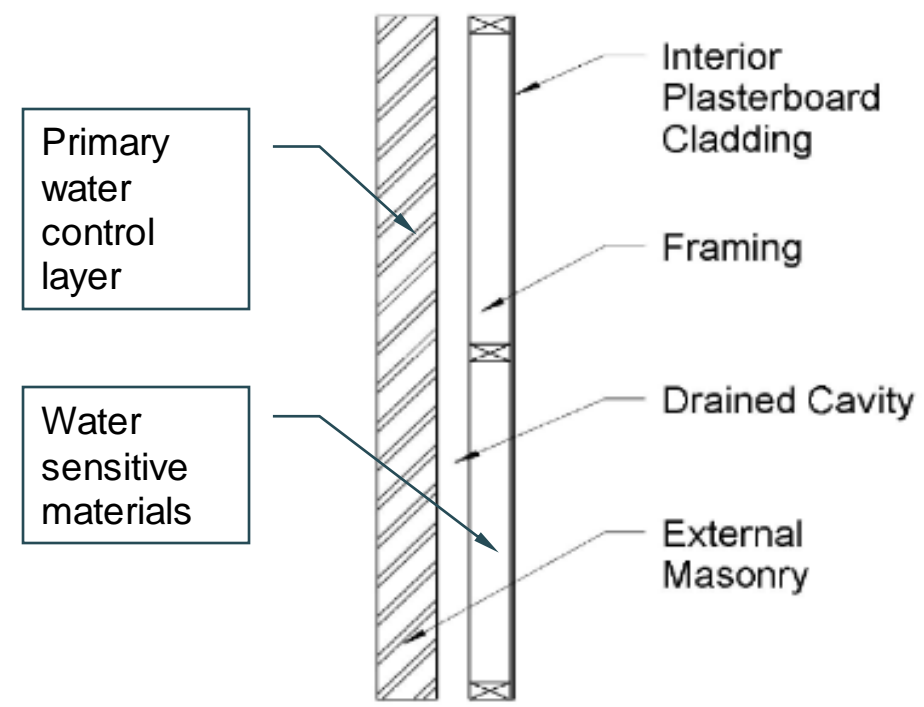


F8D3 External Wall Systems

Pliable Building Membranes



Membrane Installed



No Membrane Installed

Volume One (DtS) provisions: F8D4 Exhaust systems

Exhaust flow rates remain the same

BUT

New discharge requirements apply

Exhausts from

bathrooms

sanitary compartments

laundries

kitchen rangehoods

can no longer discharge into a ventilated roof space :
must now be discharged directly to outside air



Volume One (DtS) provisions: F8D4 Exhaust systems



For a space for a clothes drying appliance, a space must also be provided for ducting the appliance to outdoor air



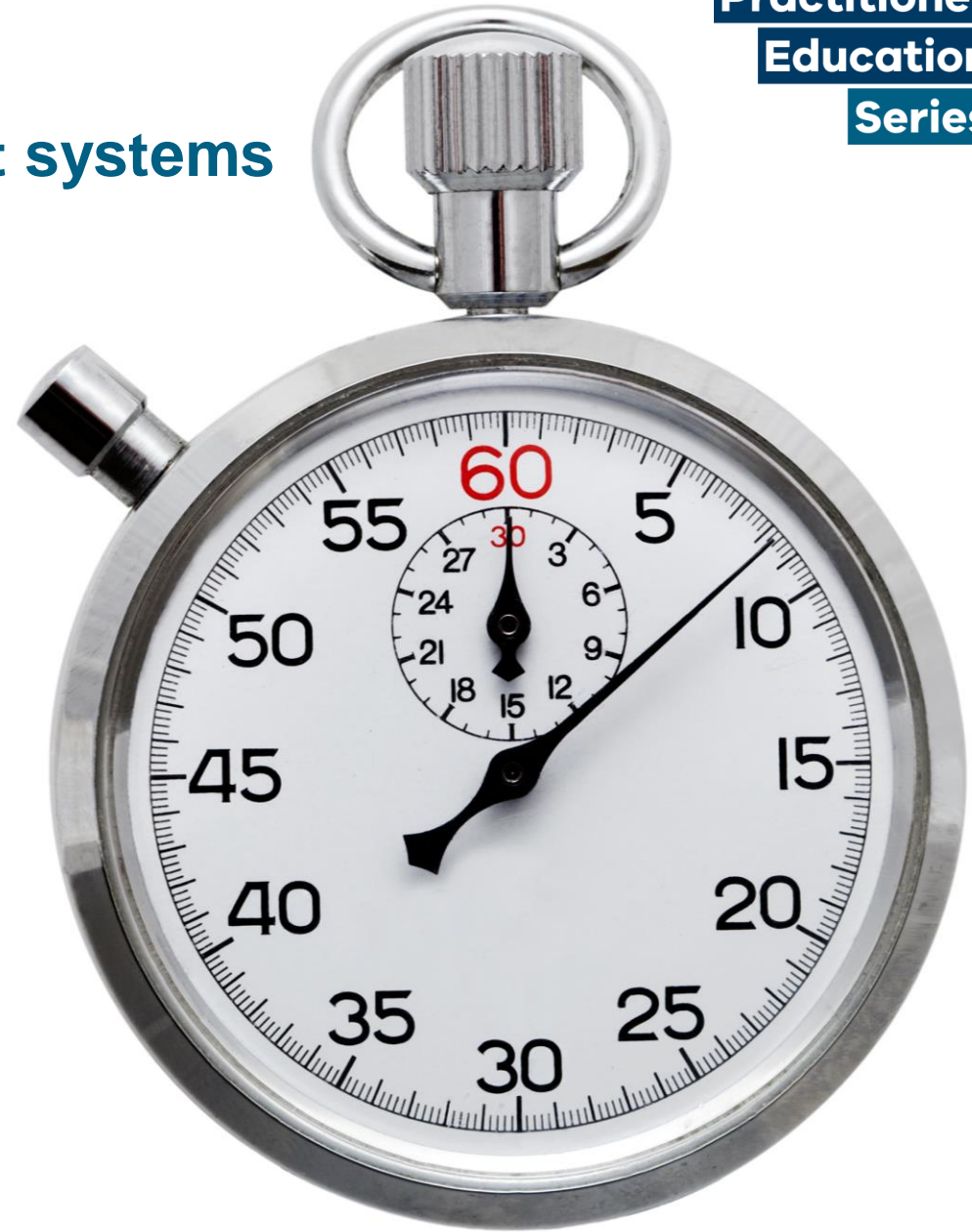
Exception: room with natural ventilation in accordance with F6D7, or with a condensing-type dryer



Volume One (DtS) provisions: F8D4 Exhaust systems

Non-continuous
bathroom / sanitary
compartment exhaust
**must be interlocked
with the light switch**
and run for at least
10 minutes
after the light switch
has been turned off.

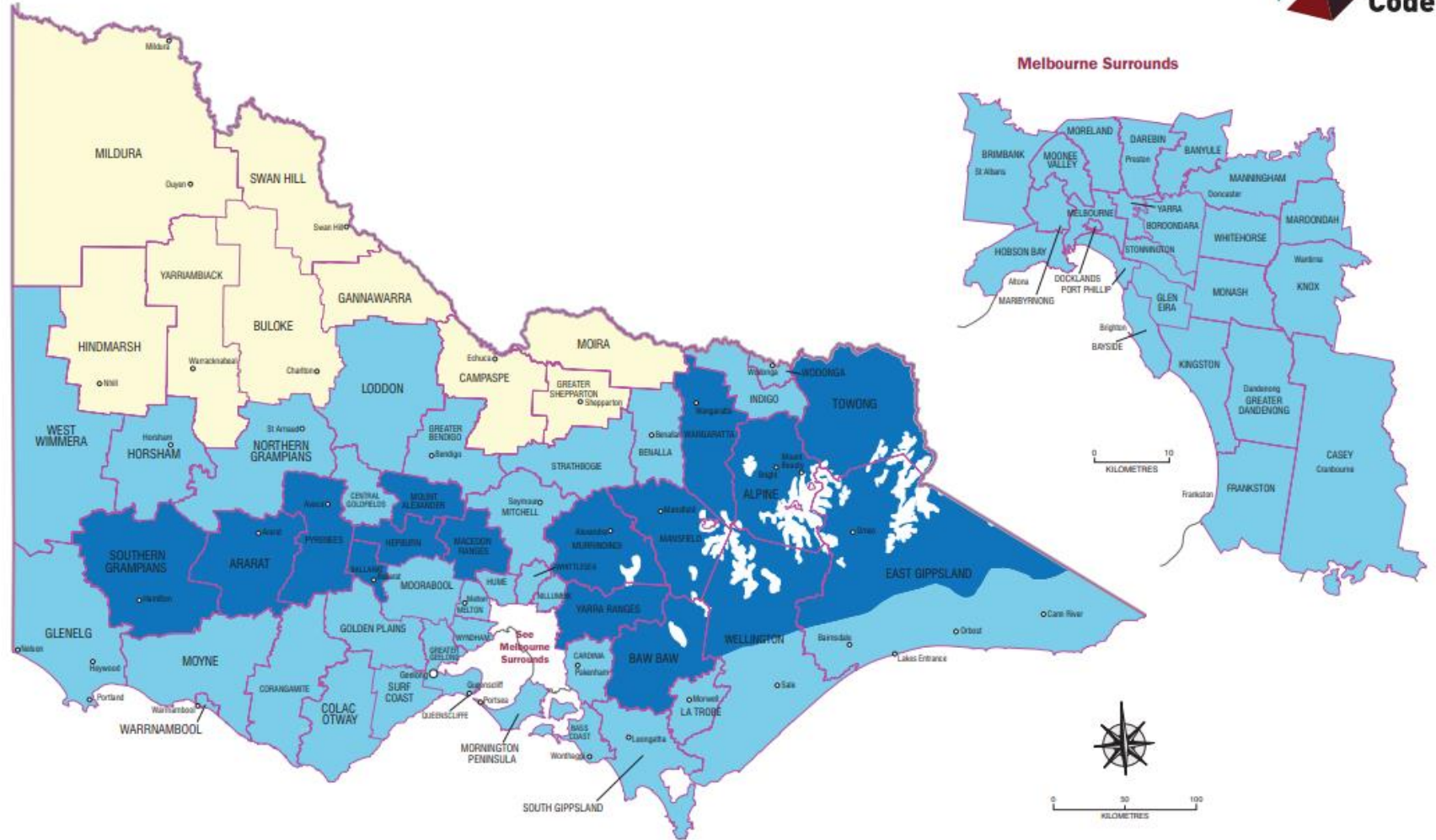
**10
minutes**



Volume One (DtS) provisions: F8D5 Ventilation of roof spaces



NCC 2022:
Ventilation of the roof space is mandatory in climate zones 6, 7 & 8



Climate Zones



Volume One (DtS) provisions: F8D5 Ventilation of roof spaces

The roof space must be

above the primary insulation layer*

or

above sarking which is immediately above the primary insulation layer

or

above ceiling insulation

and

ventilated through evenly distributed openings

The roof space must not be less than 20mm in height



***Primary insulation layer** means the most interior insulation layer of a wall or roof construction



Volume One (DtS) provisions: F8D5 Ventilation of roof spaces

Alternatively, the roof space may be directly beneath a tiled roof if **NO** sarking is installed, in which case no additional ventilation is required.

The requirement to have a ventilated roof space is **not applicable to:**

a concrete roof

insulated structural roof panels such as reinforced EPS concrete

or roofs required to be built Bushfire Attack Level FZ requirements



Table F8D5: roof space ventilation requirements

Roof pitch	Ventilation openings
<10°	25,000mm ² /m provided at each of two opposing ends
≥10° and <15°	25,000mm ² /m provided at the eaves and 5,000mm ² /m at high level
≥15° and <75°	7,000mm ² /m provided at the eaves and 5,000mm ² /m at high level, plus an additional 18,000mm ² /m at the eaves if the roof has a cathedral ceiling

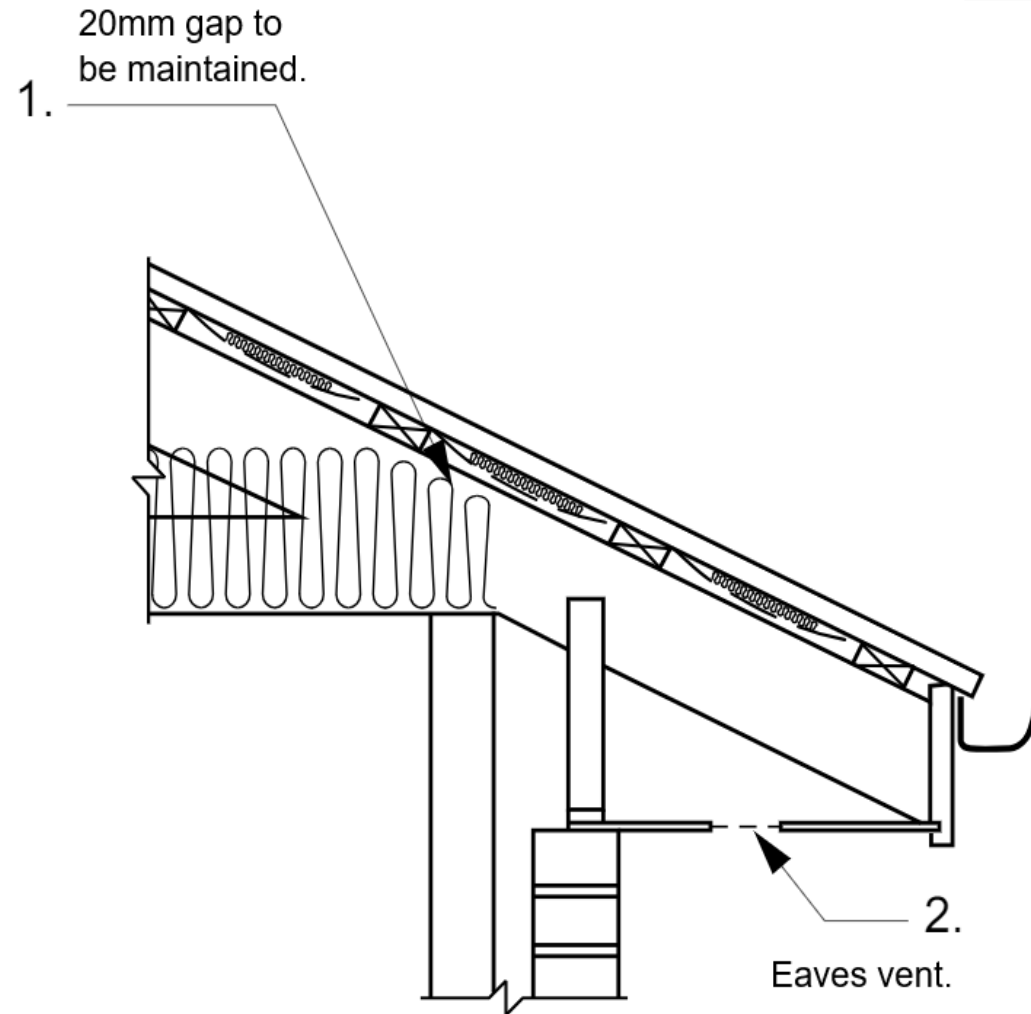
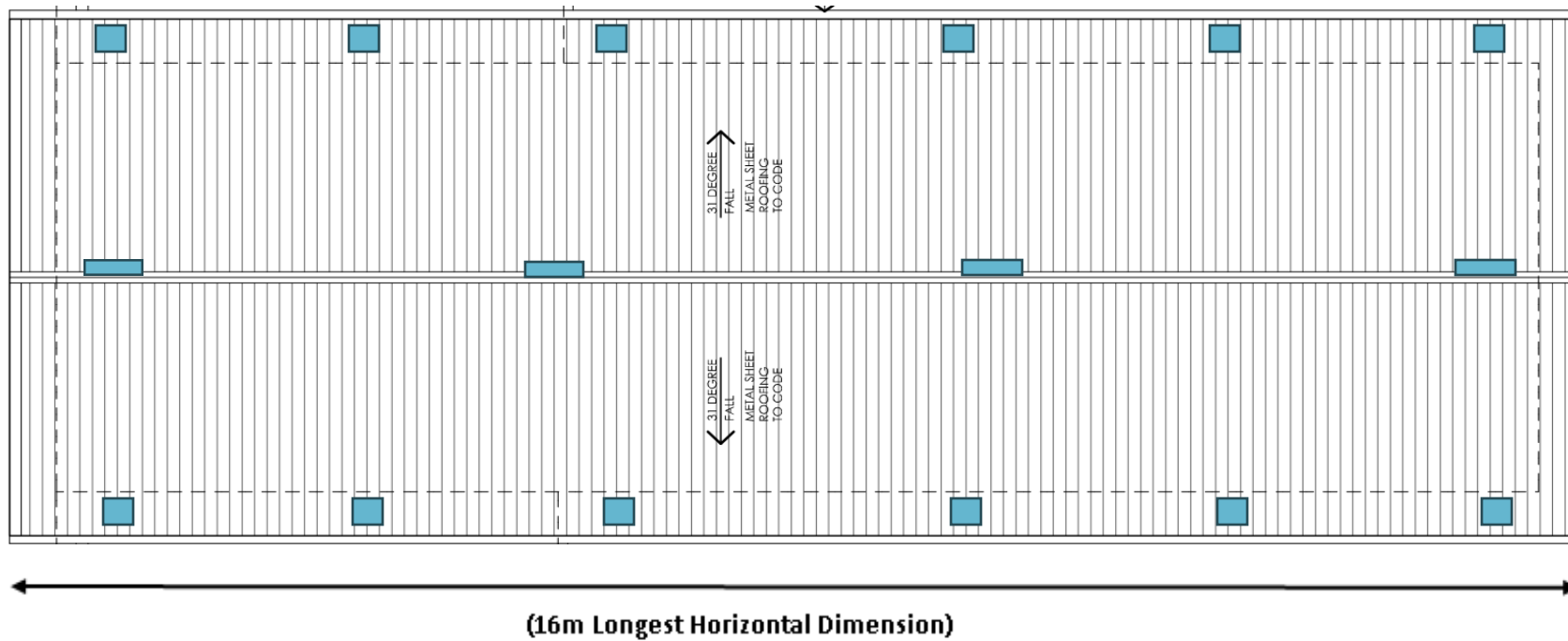


Image sourced from: ABCB Housing Provisions Standard 2022

Example: Ventilation for roof pitch between 15° and 75°



EAVES VENTS

7,000mm²/m
 7,000mm² x 16m = 112,000mm²
 112,000 ÷ 2 = 56,000mm²/eave
 56,000 ÷ 10,000 = 5.6 or 6 vents/eave

VENT TYPES

Eaves vents
 = 10,000mm² free area

Ridge vents
 = 20,000mm² free area

HIGH LEVEL VENTS

5,000mm²/m
 5,000mm² x 16m = 80,000mm²
 80,000 ÷ 20,000 = 4 vents at high level

Quick quiz

Q1: Under clause F8D4: exhaust systems, how long must the continuous timer run AFTER the light switch is turned off in a bathroom / sanitary compartment in lieu of natural ventilation?

A: 5 minutes

B: 10 minutes

C: 20 minutes

Q2. Under NCC 2022, Victorian climate zones will affect when the ventilation of roof spaces and pliable building membranes are required.

A: True

B: False



Quick quiz

Q1: Under The F8D4: exhaust systems, how long must the (non-continuous) timer run AFTER the light switch is turned off in a bathroom / sanitary compartment in lieu of natural ventilation?

B: 10 minutes

Q2. Under NCC 2022, Victorian climate zones will affect when the ventilation of roof spaces and pliable building membranes are required.

A: True



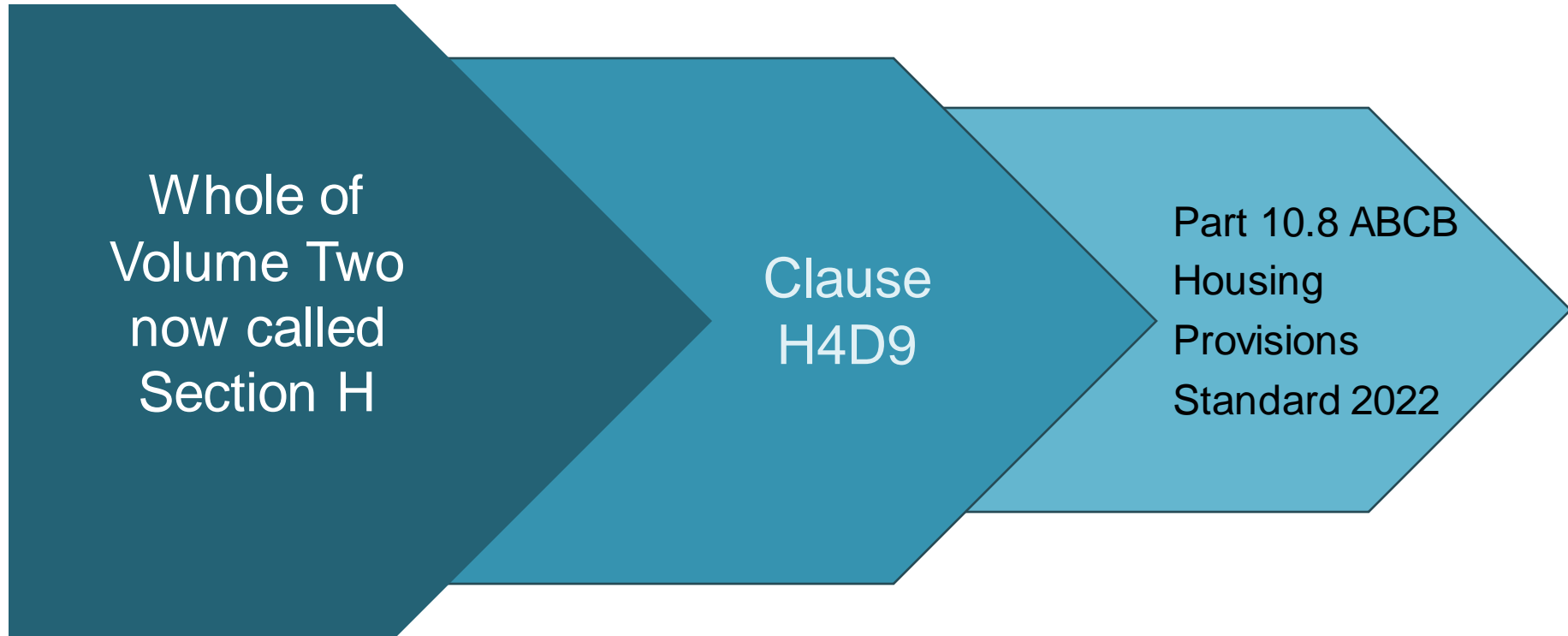
Volume Two



Volume Two Deemed-to-Satisfy (DtS) provisions: condensation management



As the majority of the Volume Two requirements are identical to Volume One, we will only be detailing provisions that are different in Volume Two



DtS Provisions: ABCB Housing Provisions Standard 2022

VOLUME ONE

Housing Provisions Standard

COMPARISON

F8D3 External walls

10.8.1. External walls

Identical

F8D4 Exhaust systems:
 space for venting clothes dryers must have space to be ducted to outdoor air
 Make up air required

10.8.2 Exhaust systems:
 (3) venting clothes dryers must be ducted to outdoor air
 (4) required 10 minute run-on timer bathroom/sanitary compartment
 (5) requires make up air in accordance with AS 1668.2; also permits an opening to an adjacent room of min, 14,000mm² in lieu of compliance with the AS 1668.2.

Slight difference

All other requirements for exhausts and roof ventilation

Identical

Conclusion

Today we have covered:



The new requirements for condensation management for NCC 2022.



We hope that this will prepare the industry for the upcoming changes to be adopted from 1 May 2024.

Thank you!

After this webinar:

Later today

We'd love your feedback!

You'll receive an email with a quick survey

You'll receive your attendance certificate via email

In approximately 2 weeks

You'll receive an email with the answers to all of today's questions that we didn't get to, as well as those that we did

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