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**MP 4.1 – SUSTAINABLE BUILDINGS**

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### **Purpose**

To ensure *Class 1* buildings and *sole-occupancy units* in *Class 2* buildings are designed and built to be energy and water efficient.

### **Commencement**

This version of Mandatory Part MP 4.1

- Commences on 1 January 2008.
- Replaces the version of Part 29 published on 1 March 2006.

### **Application**

Performance criteria P1 to P5 apply to all new *Class 1* buildings.

Performance criteria P1, P3 and P4 apply to all *sole-occupancy units* in new *Class 2* (multi-residential units) buildings.

Performance criteria P1 and P3 apply to existing *Class 1* buildings and *sole-occupancy units* in existing *Class 2* buildings for bathroom *renovations* and performance criterion P3 also applies whenever toilets are replaced.

Performance criteria P1 and P3 apply to existing *Class 1* buildings and *sole-occupancy units* in existing *Class 2* buildings for *other renovations*.

Performance criteria P1, P2 and P3 only apply in a *water service area* for a retail water service under the *Water Act 2000*.

### **Referral Agency**

There is no referral agency for this code.

Where the *acceptable solutions* of this standard are not adopted the assessment manager may assess the building for compliance with the *performance criteria* of this standard under Part 3 of the *Building Act 1975*.

### **Associated Requirements**

- *Building Act 1975*
- *Building Regulation 2006*
- *Plumbing and Drainage Act 2002*

### **Referenced standards**

- AS/NZS 3500 – 2003 Plumbing and Drainage
- AS/NZS 6400 – 2004 Water Efficient Products – rating and labelling

## Definitions

Note: *Italicised* words in the text of the standard are as defined below.

**Acceptable solution** – means a relevant building solution which is deemed to satisfy the relevant performance criterion for the purposes of S14 (4)(a)(ii) of the *Building Act 1975*.

**Building development approval** – has the same meaning as in the *Building Act 1975*.

**Class 1** - means one or more buildings which in association constitute -

(a) **Class 1a** - a single dwelling being -

(i) a detached house; or

(ii) one of a group of two or more attached dwellings, each being a building, separated by a *fire-resisting* wall, including a row house, terrace house, town house or villa unit; or

(b) **Class 1b** - a boarding house, guest house, hostel or the like -

(i) with a total area of all floors not exceeding 300 m<sup>2</sup> measured over the enclosing walls of the Class 1b; and

(ii) in which not more than 12 persons would ordinarily be resident, which is not located above or below another dwelling or another class of building other than a *private garage*.

**Class 2** - means a building containing 2 or more sole-occupancy units each being a separate dwelling.

**Floor area** – means-

(a) For a *class 1* building -

the area of the building measured within the finished surfaces of the external walls, and includes the area occupied by any cupboard or other built-in furniture, fixture or fitting and any associated garage; and

(b) For the *sole occupancy* unit a *class 2* building -

the area of all rooms within the sole occupancy unit measured within the finished surfaces of the walls, and includes the area occupied by any cupboard or other built-in furniture, fixture or fitting and any associated garage.

**Plumbing approval** – includes a plumbing permit and a compliance certificate issued under the compliance assessment provisions in the *Plumbing and Drainage Act 2002*.

**Pressure management zone** – means a small metered area within the distribution network; an area of a supply and distribution system that is specifically defined, for example by the closure of valves. The quantity of water entering and leaving the area can be metered permanently and pressure management is applied.

**Renovation** - means, any alteration or addition, requiring *building development approval*, to an existing *Class 1* building or the *sole occupancy unit* of a *Class 2* building.

**Other renovation** - means any alteration or addition requiring a *building development approval* which includes a *plumbing approval*.

**Premises** - means any land or building.

**Sole-occupancy unit** - means a room or other part of a building for occupation by one or joint owner, lessee, tenant, or other occupier to the exclusion of any other owner, lessee, tenant, or other occupier and includes a dwelling.

**Water service area** – means an area for a retail water service under the *Water Act 2000*.

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS
<b>Water Conservation</b>	
<p><b>P1</b> In a <i>water service area</i>, water saving shower roses are installed in:</p> <p>(i) new <i>Class 1</i> buildings and <i>sole-occupancy units</i> of a new <i>Class 2</i> buildings; and</p> <p>(ii) existing <i>Class 1</i> buildings and <i>sole-occupancy units</i> in existing <i>Class 2</i> buildings at time of bathroom <i>renovation</i> and/or <i>other renovation</i>.</p>	<p><b>A1</b> Water saving shower roses have:</p> <p>(a) a AAA or higher rating when assessed against AS/NZS 6400:2004; or</p> <p>(b) a three star or higher rating under the Water Efficiency Labelling scheme (WELS).</p>
<p><b>P2</b> In a <i>water service area</i>, the pressure level of water supplied to new <i>Class 1</i> building does not exceed the levels necessary for the proper functioning and operation of a fixture or fitting.</p>	<p><b>A2</b> New <i>Class 1</i> buildings in a <i>water service area</i> either:</p> <p>(a) have a mains water supply that does not exceed pressure levels set out in AS/NZS 3500.1:2003; or</p> <p>(b) are in a Pressure Management Zone; or</p> <p>(c) are located on premises with a water pressure limiting device installed to ensure the maximum operating pressure at any outlet within the boundaries of the premises does not exceed 500kPa.</p>
<p><b>P3</b> In a <i>water service area</i>, the volume of water used in toilet flushing does not exceed the volume necessary for efficient operation of toilets in:</p> <p>(i) new <i>Class 1</i> buildings and <i>sole-occupancy units</i> of a new <i>Class 2</i> buildings;</p> <p>(ii) existing <i>Class 1</i> buildings and <i>sole-occupancy units</i> in existing <i>Class 2</i> buildings at time of bathroom <i>renovation</i> and <i>other renovation</i>; and</p> <p>(iii) existing <i>Class 1</i> buildings and <i>sole-occupancy units</i> in existing <i>Class 2</i> buildings when toilets are replaced.</p>	<p><b>A3</b> Toilet cisterns:</p> <p>(a) have a dual flush function that does not exceed 6 litres on full flush and 3 litres on half flush; and</p> <p>(b) are compatible with the size of the toilet bowl to allow for proper function of the toilet.</p>

PERFORMANCE CRITERIA	ACCEPTABLE SOLUTIONS
<b>Energy Efficient Lighting</b>	
<p><b>P4</b> A significant proportion of lighting must be energy efficient in new <i>Class 1</i> buildings and the <i>sole-occupancy units</i> of new <i>Class 2</i> buildings.</p>	<p><b>A4</b> Fluorescent lights or compact fluorescent lights (CFLs) must be the only fixed artificial light source used in rooms that account for at least 40% of the total <i>floor area</i>.</p>
<b>Hot Water Supply</b>	
<p><b>P5</b> Hot water systems that have a low greenhouse gas emissions impact must be installed in new <i>Class 1</i> buildings.</p>	<p><b>A5</b> Hot water is supplied by:</p> <ul style="list-style-type: none"> <li>(a) a heat pump or a solar hot water system that is eligible to receive:               <ul style="list-style-type: none"> <li>(i) in a building with 3 or more bedrooms, at least 22 Renewable Energy Certificates; or</li> <li>(ii) otherwise, at least 14 Renewable Energy Certificates; or</li> <li>(iii) a gas hot water system with a five star energy rating.</li> </ul> </li> </ul> <p><b>Note:</b> Renewable Energy Certificates are issued under the Commonwealth Government's Mandatory Renewable Energy Target.</p>