

**2017 Oregon Plumbing Specialty Code (OPSC)  
 Interim amendments**

**Amendment Summary:**

These amendments were all part of the code adoption review for the 2021 Oregon Plumbing Specialty Code (OPSC). Because the adoption of the new code has been delayed to April of 2021, these amendments were selected for early adoption into the 2017 OPSC.

These amendments were selected because they provide cost savings to consumers and additional choices for code compliance.

~~Strikethrough~~ text represents deleted language.

Underlined text represents added language.

**Table 401.3 – Maximum fixture and fixture fittings flow rates**

**TABLE 401.3  
 MAXIMUM FIXTURE AND FIXTURE FITTINGS FLOW RATES**

<u>FIXTURE TYPE</u>	<u>FLOW RATE</u>
<u>Showerheads</u>	<u>2.0 gpm at 80 psi</u>
<u>Kitchen faucets residential</u>	<u>1.8 gpm at 60 psi</u>
<u>Lavatory faucets residential</u>	<u>1.5 gpm at 60 psi</u>
<u>Lavatory faucets other than residential</u>	<u>0.5 gpm at 60 psi</u>
<u>Metering faucets</u>	<u>0.25 gallons/cycle</u>
<u>Metering faucets for wash fountains</u>	<u>One 0.25 gallons/cycle fixture fitting for each 20 inches rim space</u>
<u>Wash fountains</u>	<u>One 2.2 gpm at 60 psi fixture fitting for each 20 inches rim space</u>
<u>Water Closets - other than remote locations<sup>3</sup></u>	<u>1.28 gallons/flush<sup>1</sup></u>
<u>Water Closets - remote locations<sup>3</sup></u>	<u>1.6 gallons/flush</u>
<u>Urinals</u>	<u>0.5 gallons/flush<sup>2</sup></u>

For SI Units: 1 gallon per minute = 0.06 L/s, 1 pound-force per square inch = 6.8947 kPa,  
 1 inch = 25.4 mm, 1 gallon = 3.785 L

**Notes:**

<sup>1</sup> Shall meet EPA WaterSense Tank-Type Toilet Specification.

<sup>2</sup> Shall meet EPA WaterSense Flushing Urinal Specification.

<sup>3</sup> Remote location is where a water closet is located not less than 30 feet (9144 mm) upstream of the nearest drain line connections or fixtures, and is located where less than 1.5 drainage fixture units are upstream of the water closet drain line connection.

<sup>4</sup> Kitchen faucets are permitted to temporarily increase the flow above the maximum rate, but not to exceed 2.2 gpm (8.3 L/m) at 60 psi (414 kPa), and shall revert to a maximum flow rate of 1.8 gpm (6.8 L/m) at 60 psi (414 kPa) upon valve closure.



## Shower Compartments.

**408.6 Shower Compartments.** Shower compartments, regardless of shape, shall have a minimum finished interior of 1024 square inches (0.6606 m<sup>2</sup>) and shall also be capable of encompassing a 30 inch (762 mm) circle. The minimum required area and dimensions shall be measured at a height equal to the top of the threshold and at a point tangent to its centerline. The area and dimensions shall be maintained to a point of not less than 70 inches (1778 mm) above the shower drain outlet with no protrusions other than the fixture valve or valves, showerheads, soap dishes, shelves, and safety grab bars, or rails. Fold-down seats in accessible shower stalls shall be permitted to protrude into the 30 inch (762 mm) circle.

**Exceptions:**

- (1) Showers that are designed to be in accordance with ICC A117.1.
- (2) The minimum required area and dimension shall not apply for a shower receptor having overall dimensions of not less than 30 inches (762 mm) in width and 60 inches (1524 mm) in length.
- (3) ~~**Wet Rooms.** The area of the floor serving each shower fixture(s) shall be no less than 48 inches (1219 mm) by 48 inches (1219 mm) and be sloped no less than  $\frac{1}{4}$  inch per foot (20.8 mm/m) to the drainage fixture. The floor area serving the shower shall be protected with an approved membrane system as described in Section 408.7 or as approved by the Building Official.~~

## Drainage fixture unit values

TABLE 702.1  
DRAINAGE FIXTURE UNIT VALUES (DFU)

PLUMBING APPLIANCES, APPURTENANCES, OR FIXTURES	MINIMUM SIZE TRAP AND TRAP ARM <sup>7</sup> (inches)	PRIVATE	PUBLIC	ASSEMBLY <sup>8</sup>
Bath tub or Combination Bath/Shower	1½	2.0	2.0	—
Bidet	1¼	1.0	—	—
Bidet	1½	2.0	—	—
Clothes Washer, domestic, standpipe <sup>5</sup>	2	3.0	3.0	3.0
Dental Unit, cuspidor	1¼	—	1.0	1.0
Dishwasher, domestic, with independent drain <sup>2</sup>	1½	2.0	2.0	2.0
Drinking Fountain or Water Cooler	1¼	0.5	0.5	1.0
Food Waste Disposer, commercial	2	—	3.0	3.0
Floor Drain, emergency	2	—	0.0	0.0
Floor Drain (for additional sizes see Section 702.0)	2	2.0	2.0	2.0
Shower, single-head trap	2	2.0	2.0	2.0
Multi-head, each additional	2	1.0	1.0	1.0
Lavatory	1¼	1.0	1.0	1.0
Lavatories in sets	1½	2.0	2.0	2.0
Washfountain	1½	—	2.0	2.0
Washfountain	2	—	3.0	3.0
Mobile Home, trap	3	12.0	—	—
Receptor, indirect waste <sup>1,3</sup>	1½	See footnote <sup>1,3</sup>		
Receptor, indirect waste <sup>1,4</sup>	2	See footnote <sup>1,4</sup>		
Receptor, indirect waste <sup>1</sup>	3	See footnote <sup>1</sup>		
Sinks	—	—	—	—
Bar	1½	1.0	—	—
Bar <sup>2</sup>	1½	—	2.0	2.0
Clinical	3	—	6.0	6.0
Commercial with food waste <sup>2</sup>	1½	—	3.0	3.0
Exam Room	1½	—	1.0	—
Special Purpose <sup>2</sup>	1½	2.0	3.0	3.0
Special Purpose	2	3.0	4.0	4.0
Special Purpose	3	—	6.0	6.0
Kitchen, domestic <sup>2</sup> (with or without food waste disposer, dishwasher, or both)	1½	2.0	2.0	—
Laundry <sup>2</sup> (with or without discharge from a clothes washer)	1½	2.0	2.0	2.0
Service or Mop Basin	2	—	3.0	3.0
Service or Mop Basin	3	—	3.0	3.0
Service, flushing rim	3	—	6.0	6.0
Wash, each set of faucets	—	—	2.0	2.0
Urinal, integral trap 1.0 GPF <sup>2</sup>	2	2.0	2.0	5.0
Urinal, integral trap greater than 1.0 GPF	2	2.0	2.0	6.0
Urinal, exposed trap <sup>2</sup>	1½	2.0	2.0	5.0
Water Closet, 1.6 GPF Gravity Tank <sup>6</sup>	3	3.0	4.0	6.0
Water Closet, 1.6 GPF Flushometer Tank <sup>6</sup>	3	3.0	4.0	6.0
Water Closet, 1.6 GPF Flushometer Valve <sup>6</sup>	3	3.0	4.0	6.0
Water Closet, greater than 1.6 GPF Gravity Tank <sup>6</sup>	3	4.0	6.0	8.0
Water Closet, greater than 1.6 GPF Flushometer Valve <sup>6</sup>	3	4.0	6.0	8.0

For SI units: 1 inch = 25 mm

### Notes:

- <sup>1</sup> Indirect waste receptors shall be sized based on the total drainage capacity of the fixtures that drain therein to, in accordance with Table 702.2(2).
- <sup>2</sup> Provide a 2 inch (50 mm) minimum drain.
- <sup>3</sup> For refrigerators, coffee urns, water stations, and similar low demands.
- <sup>4</sup> For commercial sinks, dishwashers, and similar moderate or heavy demands.
- <sup>5</sup> Buildings having a clothes-washing area with clothes washers in a battery of three or more clothes washers shall be rated at 6 fixture units each for purposes of sizing common horizontal and vertical drainage piping.
- <sup>6</sup> Water closets shall be computed as 6 fixture units where determining septic tank sizes.
- <sup>7</sup> Trap sizes shall not be increased to the point where the fixture discharge is capable of being inadequate to maintain their self-scouring properties.
- <sup>8</sup> Assembly [Public Use].
- <sup>9</sup> For a bathtub to shower retrofit, a 1½ inch (40 mm) trap and trap arm shall be permitted with a maximum shower size of 36 inches (914 mm) in width and 60 inches (1524 mm) in length.

**Maximum unit loading and maximum length of drainage and vent piping.**

Replace footnote 4 to not exceed five water closets or five six-unit traps for both the vertical and horizontal 3 inch pipe, and remove the footnote 5 reference for horizontal 3 inch pipe. See the related change in Section 708.1 below.

Add a footnote 7 for the vertical and horizontal 1 ½ inch pipe

**TABLE 703.2  
MAXIMUM UNIT LOADING AND MAXIMUM LENGTH OF DRAINAGE AND VENT PIPING**

SIZE OF PIPE (inches)	1 ¼	1 ½	2	3	4	5	6	8	10	12
<b>Maximum Units</b>										
Drainage Piping <sup>1</sup>										
Vertical	1	2 <sup>2,7</sup>	16 <sup>3</sup>	48 <sup>4</sup>	256	600	1380	3600	5600	8400
Horizontal	1	2 <sup>2,7</sup>	8 <sup>3</sup>	35 <sup>4,5</sup>	216 <sup>5</sup>	428 <sup>5</sup>	720 <sup>5</sup>	2640 <sup>5</sup>	4680 <sup>5</sup>	8200 <sup>5</sup>
<b>Maximum Length</b>										
Drainage Piping										
Vertical, (feet)	45	65	85	212	300	390	510	750	-	-
Horizontal (unlimited)										
<b>Vent Piping</b>										
Horizontal and Vertical <sup>6</sup>										
Maximum Units	1	8 <sup>3</sup>	24	84	256	600	1380	3600	-	-
Maximum Lengths, (feet)	45	60	120	212	300	390	510	750	-	-

For SI units: 1 inch = 25 mm, 1 foot = 304.8 mm

**Notes:**

- <sup>1</sup> Excluding trap arm.
- <sup>2</sup> Except sinks, urinals, and dishwashers – exceeding 1 fixture unit.
- <sup>3</sup> Except six-unit traps or water closets.
- <sup>4</sup> ~~Not to exceed five water closets or five six-unit traps. Only four water closets or six unit traps allowed on a vertical pipe or stack; and not to exceed three water closets or six unit traps on a horizontal branch or drain.~~
- <sup>5</sup> Based on ¼ inch per foot (20.8 mm/m) slope. For ⅛ of an inch per foot (10.4 mm/m) slope, multiply horizontal fixture units by a factor of 0.8.
- <sup>6</sup> The diameter of an individual vent shall be not less than 1¼ inches (32 mm) nor less than one-half the diameter of the drain to which it is connected. Fixture unit load values for drainage and vent piping shall be computed from Table 702.1 and Table 702.2(2). Not to exceed one-third of the total permitted length of a vent shall be permitted to be installed in a horizontal position. Where vents are increased one pipe size for their entire length, the maximum length limitations specified in this table do not apply. This table is in accordance with the requirements of Section 901.3.
- <sup>7</sup> Up to 8 public lavatories are permitted to be installed on a 1½ inch (40 mm) vertical branch or horizontal sanitary branch sloped at ¼ inch per foot (20.8 mm/m).

**Grade of horizontal drainage piping.**

The amendments to Table 703.2 eliminate the Oregon amendment to Section 708.1 allowing 3 inch pipe to be run at a ⅛ inch where Table 703.2 footnote 5 is being used.

**708.1 General.** Horizontal drainage piping shall be run in practical alignment and a uniform slope of not less than ¼ inch per foot (20.8 mm/m) or 2 percent toward the point of disposal provided that, where it is impractical due to the depth of the street sewer, to the structural features, or to the arrangement of a building or structure to obtain a slope of ¼ inch per foot (20.8 mm/m) or 2 percent, such pipe or piping ~~34~~ 34 inches (~~80100~~ mm) or larger in diameter shall be permitted to have a slope of not less than ⅛ inch per foot (10.4 mm/m) or 1 percent, where first approved by the Building Official.