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WAC	Title or Subject	2021 UPC #	2024 UPC #	Rationale	2024 Staff Recommendation	2024 TAG Member Recommendation	Other Comments
	Standard is referenced in Appendix I for the convenience of the users of this code. It is not considered as a part of this code unless formally adopted as such by the Authority Having Jurisdiction.						
	Use of vent and waste pipes	310.4	310.4	Existing Prior 2003 WSR 04-01-110	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	310.4 Use of Vent and Waste Pipes. Except as hereinafter provided in Section 908.0 through Section 911.0, no vent pipe shall be used as a soil or waste pipe, nor shall a soil or waste pipe be used as a vent. Also, single stack drainage and venting systems with unvented branch lines are prohibited.						
	Freezing protection	312.6	312.6	<u>Existing Prior 2003</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	312.6 Freezing Protection. No water, soil, or waste pipe shall be installed or permitted outside of a building, in attics or crawl spaces, or in an exterior wall unless, where necessary, adequate provision is made to protect such pipe from freezing. <u>All hot and cold water pipes installed outside the conditioned space shall be insulated to meet the minimum requirements of the Washington State Energy Code.</u>						
	Fire-resistant construction	312.7	312.7	Existing Prior 2003 WSR 04-01-110	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	312.7 Fire-Resistant Construction. Piping penetrations of fire-resistance-rated walls, partitions, floors, floor/ceiling assemblies, roof/ceiling assemblies, or shaft enclosures shall be protected in accordance with the requirements of the building code and Chapter 14, "Firestop Protection." <u>All pipe penetrating floor/ceiling assemblies and fire-resistance rated walls or partitions shall be protected in accordance with the requirements of the building code.</u>						

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WAC	Title or Subject	2021 UPC #	2024 UPC #	Rationale	2024 Staff Recommendation	2024 TAG Member Recommendation	Other Comments
Chapter 4 Plumbing Fixtures and Fixture Fittings							
51-56-0400	Chapter 4 – Plumbing Fixtures and Fixture Fittings						
	Setting	402.5	402.5	<u>In 2009 it was amended to align with IRC and that can be found in WSR 09-17-143</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	<p>402.5 Setting. Fixtures shall be set level and in proper alignment with reference to adjacent walls. No water closet or bidet shall be set closer than 15 inches (381 mm) from its center to a side wall or obstruction or closer than 30 inches (762 mm) center to center to a similar fixture. The clear space in front of a water closet, lavatory, or bidet shall be not less than 24 inches (610 mm). No urinal shall be set closer than 12 inches (305 mm) from its center to a side wall or partition or closer than 24 inches (610 mm) center to center.</p> <p>Exceptions: The installation of paper dispensers or accessibility grab bars shall not be considered obstructions.</p>						
	Application	405.4	405.4	<u>Existing prior 2003</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	<u>405.4 Application. No individual, public or private corporation, firm, political subdivision, government agency, or other legal entity, may, for purposes of use in the state of Washington, distribute, sell, offer for sale, import, install, or approve for installation any plumbing fixtures or fittings unless the fixtures or fittings meet the standards as provided for in this chapter.</u>						
	Application (Lavatories)	407.1	407.1	<u>Amendment 407.1 was adopted due to the UPC table was not adopted and this brought IBC 2902.1</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	<p>407.1 Application. Lavatories shall comply with ASME A112.19.1/CSA B45.2, ASME A112.19.2/CSA B45.1, ASME A112.19.3/CSA B45.4, ASME A112.19.12, CSA B45.5/IAPMO Z124, CSA B45.8/IAPMO Z403, CSA B45.11/IAPMO Z401 or CSA B45.12/IAPMO Z402. Group wash fixtures shall comply with the requirements of Section 401.2. Every 20 inches (508 mm) of rim space of a group wash fixture shall be considered as one lavatory for determining the number of lavatories required in accordance with the International Building Code Table 2902.1. Lavatory assemblies with automatic soap dispensers, faucets, or hand dryers shall comply with IAPMO IGC 127.</p>						
	Water consumption (Lavatories)	407.2	407.2	<u>In 2020 there was a Legislative rule WSR 21-01-125</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	407.2 Water Consumption. The maximum water flow rate of faucets shall comply with Section 407.2.1 <u>and through</u> Section 407.2.2.						
	Maximum flow rate (Lavatories)	407.2.1	407.2.1	<u>In 2020 there was a Legislative rule WSR 21-01-125</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	407.2.1 Maximum Flow Rate. The maximum flow rate for public lavatory faucets shall not exceed 0.5 gpm at 60 psi (1.9 L/m at 414 kPa) <u>and 2.2 gpm at 60 psi (8.3 L/m at 414 kPa) for private lavatory faucets.</u>						
	Residential lavatory faucets	407.2.1.1	407.2.1.1	<u>In 2020 there was a Legislative rule WSR 21-01-125</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	

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	<u>407.2.1.1 Residential Lavatory Faucets. The maximum flow rate of residential lavatory faucets shall not exceed 1.2 gallons (4.54 L) per minute at 60 psi. The minimum flow rate of residential lavatory faucets shall not be less than 0.8 gallons (3.03 L) per minute at 20 psi.</u>						
	Lavatory faucets in common and public use areas	407.2.1.2	407.2.1.2	<u>In 2020 there was a Legislative rule WSR 21-01-125</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	<u>407.2.1.2 Lavatory Faucets in Common and Public Use Areas. The maximum flow rate of lavatory faucets, installed in common and public use areas (outside of dwellings or sleeping units) in residential buildings, shall not exceed 0.5 gallons (1.89 L) per minute at 60 psi.</u>						
	Metering faucets	407.2.2	407.2.2	<u>In 2020 there was a Legislative rule WSR 21-01-125</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	407.2.2 Metering Faucets. Metered faucets shall deliver a maximum of 0.25 gallons (0.95 L) per metering cycle <u>in accordance with ASME A112.18.1/CSA B125.1.</u>						
	Metering valves	407.4	407.4	<u>In 2020 there was a Legislative Added exception rule WSR 21-01-125</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	407.4 Transient Public Lavatories <u>Metering Valves. Self-closing or metering faucets shall be installed on lavatories intended to serve the transient public, such as those in, but not limited to service stations, train stations, airports, restaurants, and convention halls. Lavatory faucets located in restrooms intended for use by the general public shall be equipped with a metering valve designed to close by spring or water pressure when left unattended (self-closing).</u> <u>Exceptions:</u> <u>1. Where designated and installed for use by persons with a disability.</u> <u>4-2. Where installed in day care centers, for use primarily by children under 6 years of age.</u>						
	Water consumption (Showers)	408.2	408.3	<u>In 2020 there was a Legislative rule WSR 21-01-125</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	<u>-See significant changes</u>
	408.3 Water Consumption. Showerheads shall have a maximum flow rate of not more than 2.5-1.8 gpm at 80 psi (9.56.8 L/m at 552 kPa). Body sprays shall have a flow rate of not more than 2.5 gpm at 80 psi (9.5 L/m at 552 kPa). <u>Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specifications for Showerheads.</u> <u>Exception: Emergency use showers shall be exempt from the maximum water usage rates.</u>						
	Multiple showerheads serving one shower	408.2.1	408.2.1	<u>Brings water standards and adds in specifications that follow model code WSR 20-17-049</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	

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	<u>408.2.1 Multiple Showerheads Serving One Shower. When a shower is served by more than one showerhead, including handheld showerheads, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons (6.81 L) per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time.</u>						
	Waste outlet	408.4	408.5	<u>Existing Prior 2003</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	<u>See significant changes</u>
	408.5 Waste Outlet. Showers shall have a waste outlet and fixture tailpiece not less than 2 inches (50 mm) in diameter. Fixture tailpieces shall be constructed from the materials specified in Section 701.2 for drainage piping. Strainers serving shower drains shall <u>have a waterway at least equivalent to the area of the tailpiece comply with ASME A112.18.2/CSA B125.2.</u> <u>Exception: In a residential dwelling unit where a 2-inch waste is not readily available and approval of the AHJ has been granted, the waste outlet fixture tailpiece, trap and trap arm may be 1-1/2 inch when an existing tub is being replaced by a shower sized in accordance with Section 408.2. This exception only applies where one showerhead rated at 1.8 gpm is installed.</u>						
	Shower compartments	408.6	408.7	<u>Existing Prior 2003</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	<u>See significant changes</u>
	408.7 Shower Compartments. Shower compartments shall have a finished interior in accordance with the following: (1) Not less than <u>4024-900</u> square inches (<u>0.66060.58</u> m2). (2) 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 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.						
	Water consumption (Water closets)	411.2	411.2	<u>Was added to create standard for water closet usage WSR 20-17-049</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	411.2 Water Consumption. <u>Water closets shall have a maximum consumption not to exceed 1.6 gallons (6.0 Lpf) of water per flush. The effective flush volume of all water closets shall not exceed 1.28 gallons (4.8 L) per flush when tested in accordance with ASME A112.19.2/CSA B45.1.</u> Exceptions: <u>1. Water closets located in day care centers, intended for use by young children may have a maximum water use of 3.5 gallons (13.25 L) per flush.</u> <u>2. Water closets with bed pan washers may have a maximum water use of 3.5 gallons (13.25 L) per flush.</u> <u>4-3. Blow out bowls, as defined in ANSI/ASME A112.19.2M, Section 5.1.2.3 may have a maximum water use of 3.5 gallons (13.25 L) per flush.</u>						

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	Performance	411.2.2	411.2.2	<u>In 2020 there was a legislative rule which led to this standard WSR 20-17-049</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	411.2.2 Performance. Water closets installed shall meet or exceed the minimum performance criteria developed for certification of high-efficiency toilets under the WaterSense program sponsored by the U.S. Environmental Protection Agency (EPA).						▲
	Flushometer valve activated water closets	411.2.3	411.2.3	<u>In 2020 there was a Legislative rule which led to this standard WSR 20-17-049</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	411.2.2411.2.3 Flushometer Valve Activated Water Closets. Flushometer valve activated water closets shall have a maximum flush volume of <u>4-61.28</u> gallons (<u>6-04.8</u> Lpf) of water per flush <u>in accordance with ASME A112.19.2/CSA B45.1</u> .						▲
	Application (Urinals)	412.1	412.1	<u>In 2020 there was a Legislative rule which led to this standard, WSR 20-17-049</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	412.1 Application. Urinals shall comply with ASME A112.19.2/CSA B45.1, ASME A112.19.19, or CSA B45.5/IAPMO Z124. <u>Wall-mounted urinals shall have an average water consumption not to exceed 0.125 gallons (0.47 L) per flush. Other urinals shall have an average water consumption not to exceed 4-0.5 gallons (3-81.89 Lpf) of water per flush.</u>						▲
	Drainage connection (Dishwashers)	414.3	414.3	<u>Modification to align with state requirements WSR 13-04-054</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	414.3 Drainage Connection. Domestic dishwashing machines shall discharge indirectly through an air gap fitting in accordance with Section 807.3 into a waste receptor, a wye branch fitting on the tailpiece of a kitchen sink, or dishwasher connection of a food waste disposer. Commercial dishwashing machines shall discharge indirectly through an air <u>break in accordance with Section 807.1, or by a direct connection in accordance with Section 704.3gap.</u>						
	Drinking fountain alternatives	415.3	<u>415.2</u>	<u>The reason being that the Building Code takes precedence WSR 16-02-044</u>	Repeal existing state amendments:	<u>Keep existing amendment</u>	<u>Retain existing state amendment</u>
	415.2 Drinking Fountain Alternatives. <u>Where food is consumed indoors, water stations shall be permitted to be substituted for drinking fountains. Bottle filling stations shall be permitted to be substituted for drinking fountains up to 50 percent of the requirements for drinking fountains. Drinking fountains shall not be required for an occupant load of 30 or less.</u> <u>This section is not adopted. See Building Code Chapter 29.</u>						▲
	Location of floor drains	418.3	418.3	<u>Sanitation, safety, and compliance with national plumbing and building standards. WSR 13-04-054</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	418.3 Location of Floor Drains. Floor drains shall be installed in the following areas: (1) Toilet rooms containing two or more water closets or a combination of one water closet and one urinal, except in a dwelling unit. <u>The floor shall slope toward the floor drains.</u> (2) <u>Commercial kitchens and in accordance with Section 704.3.</u> (3) <u>Laundry rooms in commercial buildings and common laundry facilities in multi-family dwelling buildings.</u>						

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	(4) Boiler rooms.														
	Water consumption (Sinks)	420.2	420.2	<u>New standard added to UPC 2018 WSR 20-02-072</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>									
	420.2 Water Consumption. Sink faucets shall have a maximum flow rate of not more than 2.2 gpm at 60 psi (8.3 L/m at 414 kPa) <u>in accordance with ASME A112.18.1/CSA B125.1.</u> Exceptions: (1) Clinical sinks (2) Laundry sinks (3) Service sinks														
	Kitchen faucets	(N/A)	<u>420.2.1</u>	<u>New Standard added to UPC 2018 WSR 20-02-072</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>									
	<u>420.2.1 Kitchen Faucets. Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons (6.81 L) per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons (8.3 L) per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons (6.81 L) per minute at 60 psi.</u> <u>Exception: Where faucets meeting the maximum flow rate of 1.8 gpm (6.81 L/m) are unavailable, aerators or other means may be used to achieve reduction.</u>														
	Pre-rinse spray valve	420.3	420.3	(2018) <u>2012 Added requirement for Pre-Rinse Spray Valve 403.5 water conservation wa reason. WSR 20-02-072</u>	<u>Keep existing amendment</u>	<u>Possible Code change.</u>	New Fed maximum rates								
	420.3 Pre-Rinse Spray Valve. Commercial food service pre-rinse spray valves shall have a maximum flow rate of <u>1.6 gallons per minute (gpm) at 60 pounds-force per square inch (psi) (6.0 L/m at 414 kPa)</u> in accordance with Table 420.3 and ASME A112.18.1/CSA B125.1 and shall be equipped with an integral automatic shutoff. <div><u>TABLE 420.3</u> <u>COMMERCIAL PRE-RINSE SPRAY VALVE MAXIMUM FLOW RATE</u><table><tr><th><u>PRODUCT CLASS BY SPRAY FORCE</u></th><th><u>MAXIMUM FLOW RATE, GPM</u></th></tr><tr><td><u>Product Class 1 (\leq 5.0 ounces-force)</u></td><td><u>1.00</u></td></tr><tr><td><u>Product Class 2 ($>$ 5.0 ounces-force and \leq 8.0 ounce-force)</u></td><td><u>1.20</u></td></tr><tr><td><u>Product Class 3 ($>$ 8.0 ounces-force)</u></td><td><u>1.28</u></td></tr></table></div> <u>For SI units: 1 gallon per minute = 3.785 L/min, 1 ounce-force = 0.278 N</u>						<u>PRODUCT CLASS BY SPRAY FORCE</u>	<u>MAXIMUM FLOW RATE, GPM</u>	<u>Product Class 1 (\leq 5.0 ounces-force)</u>	<u>1.00</u>	<u>Product Class 2 ($>$ 5.0 ounces-force and \leq 8.0 ounce-force)</u>	<u>1.20</u>	<u>Product Class 3 ($>$ 8.0 ounces-force)</u>	<u>1.28</u>	
<u>PRODUCT CLASS BY SPRAY FORCE</u>	<u>MAXIMUM FLOW RATE, GPM</u>														
<u>Product Class 1 (\leq 5.0 ounces-force)</u>	<u>1.00</u>														
<u>Product Class 2 ($>$ 5.0 ounces-force and \leq 8.0 ounce-force)</u>	<u>1.20</u>														
<u>Product Class 3 ($>$ 8.0 ounces-force)</u>	<u>1.28</u>														
	Minimum number of required fixtures	422	422	<u>Existing Prior 2003</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>									

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	422.0 Minimum Number of Required Fixtures. <u>For minimum number of plumbing fixtures required, see Building Code Chapter 29 and Table 2902.1.</u> <u>Sections 422.1 through 422.5 and Table 422.1 are not adopted.</u>																						
	Spray sprinkler body	423	423	<u>conserve water and reduce waste in landscape irrigation WSR 20-17-049</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>																	
	423.0 Landscape Irrigation. 423.1 Spray Sprinkler Body. <u>Spray sprinkler bodies must include an integral pressure regulator and must meet the water efficiency and performance criteria and other requirements of environmental protection agency water sense program product specification for spray sprinkler bodies.</u> <u>Exception: Spray sprinkler bodies specifically excluded from the scope of the environmental protection agency water sense program product specification for spray sprinkler bodies.</u>																						
Chapter 5 Water Heaters																							
51-56-0500	Chapter 5 – Water Heaters																						
	Applicability	501.1	501.1	<u>Existing Prior 2003</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>																	
	505.1 Applicability. The regulations of this chapter shall govern the construction, location, and installation of fuel-burning and other types of water heaters heating potable water, together with chimneys, vents, and their connectors. The minimum capacity for storage water heaters shall be in accordance with the first-hour rating listed in Table 501.1(2). <u>See the Mechanical Code for combustion air and installation of all vents and their connectors. No water heater shall be hereinafter installed that does not comply with the manufacturer's installation instructions and the type and model of each size thereof approved by the authority having jurisdiction.</u> A list of accepted water heater appliance standards is referenced in Table 501.1(1). Listed appliances shall be installed in accordance with the manufacturer's installation instructions. Unlisted water heaters shall be permitted in accordance with Section 504.3.2. <u>Water heaters shall be installed in accordance with the manufacturer's installation instructions. The final installation shall be approved by the Authority Having Jurisdiction.</u> TABLE 501.1(1) WATER HEATERS <table><tr><th>TYPE*</th><th>STANDARD</th></tr><tr><td>Electric, Household <u>Storage</u></td><td>UL 174</td></tr><tr><td>Oil-Fired Storage Tank</td><td>UL 732</td></tr><tr><td>Gas-Fired, 75,000 Btu/h or less, Storage</td><td>CSA/ANSI Z21.10.1/<u>CSA 4.1</u></td></tr><tr><td>Gas-Fired, Above 75,000 Btu/h, Storage and Instantaneous</td><td>CSA/ANSI Z21.10.3/<u>CSA 4.3</u></td></tr><tr><td>Electric, Commercial Storage</td><td>UL 1453</td></tr><tr><td>Solid Fuel-Fired</td><td>UL 2523</td></tr><tr><td>Electric Instantaneous</td><td>UL 499</td></tr></table> <p>For SI units: 1000 British thermal units per hour = 0.293 kW * <u>Dual purpose water heaters shall be installed in accordance with this code</u></p>						TYPE*	STANDARD	Electric, Household <u>Storage</u>	UL 174	Oil-Fired Storage Tank	UL 732	Gas-Fired, 75,000 Btu/h or less, Storage	CSA/ANSI Z21.10.1/ <u>CSA 4.1</u>	Gas-Fired, Above 75,000 Btu/h, Storage and Instantaneous	CSA/ANSI Z21.10.3/ <u>CSA 4.3</u>	Electric, Commercial Storage	UL 1453	Solid Fuel-Fired	UL 2523	Electric Instantaneous	UL 499	
TYPE*	STANDARD																						
Electric, Household <u>Storage</u>	UL 174																						
Oil-Fired Storage Tank	UL 732																						
Gas-Fired, 75,000 Btu/h or less, Storage	CSA/ANSI Z21.10.1/ <u>CSA 4.1</u>																						
Gas-Fired, Above 75,000 Btu/h, Storage and Instantaneous	CSA/ANSI Z21.10.3/ <u>CSA 4.3</u>																						
Electric, Commercial Storage	UL 1453																						
Solid Fuel-Fired	UL 2523																						
Electric Instantaneous	UL 499																						

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	<p>and the manufacturer's installation instructions.</p> <p>TABLE 501.1(2)^{1,3}</p> <table><tr><td>Number of Bathrooms</td><td colspan="3">1 to 1.5</td><td colspan="4">2 to 2.5</td><td colspan="4">3 to 3.5</td></tr><tr><td>Number of Bedrooms</td><td>1</td><td>2</td><td>3</td><td>2</td><td>3</td><td>4</td><td>5</td><td>3</td><td>4</td><td>5</td><td>6</td></tr><tr><td>First Hour Rating², Gallons</td><td>38</td><td>49</td><td>49</td><td>49</td><td>62</td><td>62</td><td>74</td><td>62</td><td>74</td><td>74</td><td>74</td></tr></table> <p>Notes: ¹The first hour rating is found on the "Energy Guide" label.</p> <p> ²Nonstorage and solar water heaters shall be sized to meet the appropriate first hour rating as shown in the table, and shall be capable of delivering hot water at the maximum system demand flow, as calculated in Section 610.0 or Appendix A, as applicable.</p> <p> ³For replacement water heaters, see Section 102.4.</p>						Number of Bathrooms	1 to 1.5			2 to 2.5				3 to 3.5				Number of Bedrooms	1	2	3	2	3	4	5	3	4	5	6	First Hour Rating ² , Gallons	38	49	49	49	62	62	74	62	74	74	74	
Number of Bathrooms	1 to 1.5			2 to 2.5				3 to 3.5																																			
Number of Bedrooms	1	2	3	2	3	4	5	3	4	5	6																																
First Hour Rating ² , Gallons	38	49	49	49	62	62	74	62	74	74	74																																
▲	Demand Response	501.1.2	501.1.2	In 2020 there was a Legislative rule which led to this standard WSR 21-01-125	Keep existing amendment	Keep existing amendment																																					
▲	<p>501.1.2 Consumer Electric Storage Water Heater Requirements. Consumer electric storage water heaters must have a modular demand response communications port compliant with the March 2018 version of the ANSI/CTA-2045-A communication interface standard, or equivalent and the March 2018 version of the ANSI/CTA-2045-A application layer requirements. The interface standard and application layer requirements required in this subsection are the versions established on March 16, 2018.</p> <p>Exceptions:</p> <p> 1. Water heaters manufactured prior to January 1, 2021.</p> <p> 2. Electric storage water heaters other than heat pump type water heaters manufactured prior to January 1, 2022.</p>						▲																																				
▲	Mini-tank WH	501.1.3	501.1.3	In 2020 there was a legislative rule which led to this standard, WSR 21-01-125	Keep existing amendment	Keep existing amendment																																					
▲	<p>501.1.3 Mini-tank Electric Water Heaters. The standby energy consumption of hot water dispensers and mini-tank electric water heaters manufactured on or after January 1, 2010, shall be not greater than 35 watts. Mini-tank electric water heaters shall be tested in accordance with the method specified in the California Code of 39 Regulations, Title 20, section 1604 in effect as of July 26, 2009.</p>						▲																																				
▲	Location	504.1	504.1	Existing Prior 2003	Keep existing amendment	Keep existing amendment																																					
▲	<p>504.1 Location. Water heater installations in bedrooms and bathrooms shall comply with one of the following:</p> <p>2. Water heater shall be of the direct vent type.</p> <p>1. Fuel-burning water heaters may be installed in a closet located in the bedroom or bathroom provided the closet is equipped with a listed, gasketed door assembly and a listed self-closing device. The self-closing door assembly shall meet the requirements of Section 504.1.1. The</p>						▲																																				

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WAC	Title or Subject	2021 UPC #	2024 UPC #	Rationale	2024 Staff Recommendation	2024 TAG Member Recommendation	Other Comments
	door assembly shall be installed with a threshold and bottom door seal and shall meet the requirements of Section 504.1.2. All combustion air for such installations shall be obtained from the outdoors in accordance with the International Mechanical Code. The closet shall be for the exclusive use of the water heater. <u>2. Water heater shall be of the direct-vent type.</u>						
	Safety Devices	505.2	505.2	Removes the reference to boilers as L&I regulates boilers (pre-2000)	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	505.2 Safety Devices. All storage-type water heaters and hot water boilers deriving heat from fuels or types of energy other than gas, shall be provided with, in addition to the primary temperature controls, an over-temperature safety protection device that complies with and is installed in accordance with nationally recognized applicable standards for such devices and a combination temperature and pressure-relief valve.						
	Combustion air	506	506	The RCW cites the mechanical code as the governing code over combustion air and venting (pre-2000)	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	506.0 Air for Combustion and Ventilation. For issues relating to combustion air, see the Mechanical Code. Sections 506.1 through 506.9 are not adopted. Sections 507.6 through 507.9 are not adopted.						
	Seismic strapping	507.2	507.2	Original amendment deleted the reference to seismic zones since the cited zones covered all of Washington. The model code removed zone-specific requirements in the 2021 edition. Now it just correct grammar. <u>WSR 15-16-099</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	507.2 Seismic Provisions. Water heaters shall be anchored or strapped to resist horizontal displacement due to earthquake motion. Strapping shall be at points within the upper one-third and lower one-third of its vertical dimensions. At the lower point, a distance of not less than 4 inches (102 mm) shall be maintained from the controls <u>with to</u> the strapping.						
	WH in Garages	507.13	507.13	Original amendment inserted "ignition sources" to require elevation for all types of WH in garages (2009) The 2018 model code added "residential" to differentiate from the later requirements for "Commercial Garages." The TAG in 2018 recommended the "Residential" be struck and have the elevation requirement for all garages. (2018) <u>"and ignition sources" no longer needed with the addition of the new language WSR 11-05-037</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	

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	507.13 Installation in Residential Garages. Appliances in residential garages and in adjacent spaces that open to the garage and are not part of the living space of a dwelling unit shall be installed so that all heating elements, switches, burners, and burner-ignition devices and ignition sources are located not less than 18 inches (457 mm) above the floor. unless listed Exception: as Listed flammable vapor ignition resistant.						
▲	Venting	507.16	507.16	The RCW cites the mechanical code as the governing code over combustion air and venting (pre-2000)	Keep existing amendment	Keep existing amendment	507.21
	507.16 Venting of Flue Gases. Appliances shall be vented in accordance with the provisions of this chapter. This section is not adopted.						
▲	Gas Piping	507.18 – 507.21	507.18 – 507.21	The RCW cites the mechanical code as the governing code over gas piping (pre-2000)	Modify amendment to correspond with removal of model code section	Recommended for code change	
	<u>Sections 507.18 through 507.22-507.21 are not adopted.</u> 507.18 Addition to existing system 507.19 Avoiding Strain on Gas Piping 507.20 Gas Appliance Pressure Regulators 507.21 Venting of Gas Appliance Pressure Regulators 507.221 Bleed Lines for Diaphragm-Type Valves						
▲	Vent sizing	510	510	The RCW cites the mechanical code as the governing code over combustion air and venting (pre-2000)	Keep existing amendment	Keep existing amendment	
	510.0 Sizing of Category I Venting Systems. <u>This section is not adopted.</u>						
Chapter 6 Water Supply and Distribution							
51-56-0600	Chapter 6 – Water Supply and Distribution						
▲	Applicability	601.1	601.1	References were added to clarify the chapter also governs backflow devices and assemblies (2015) WSR 10-03-101	Keep existing amendment	Keep existing amendment	
▲	601.1 Applicability. This chapter shall govern the materials, design, and installation of water supply systems, including backflow prevention devices, assemblies and methods and devices used for backflow prevention.						▲
▲	General Cross Connection	603.1	603.1	The RCW cites the DOH as the governing code over backflow devices and venting (pre-2000)	Keep existing amendment	Keep existing amendment	

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WAC	Title or Subject	2021 UPC #	2024 UPC #	Rationale	2024 Staff Recommendation	2024 TAG Member Recommendation	Other Comments
	<p>603.1 General. Cross-connection control shall be provided in accordance with the provisions of this chapter. <u>Devices or assemblies for protection of the public water system must be models approved by the department of health under WAC 246-290-490. The authority having jurisdiction shall coordinate with the local water purveyor where applicable in all matters concerning cross-connection control within the property lines of the premises.</u></p> <p>No person shall install <u>any</u> water-operated equipment or mechanism, or use a water-treating chemical or substance, where-if it is found that such equipment, mechanism, chemical, or substance <u>causes may cause</u> pollution or contamination of the domestic water supply. Such equipment or mechanism shall be permitted <u>where only when</u> equipped with an approved backflow prevention device or assembly.</p>						
	Approval of backflow devices	603.2	603.2	<u>The RCW cites the DOH as the governing code over backflow devices and venting (pre-2000)</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	Significant change
	<p>603.2 Approval of Devices or Assemblies. Before a device or an assembly is installed for the prevention of backflow, it shall have first been approved by the Authority Having Jurisdiction. Devices or assemblies shall be tested <u>in accordance for conformity</u> with recognized standards or other standards acceptable to the Authority Having Jurisdiction. Backflow prevention devices and assemblies shall comply with Table 603.2, except for specific applications and provisions as stated in Section 603.5.1 through Section 603.5.24 <u>603.5.22</u>.</p> <p><u>All</u> devices or assemblies installed in a potable water supply system for protection against backflow shall be maintained in good working condition by the person or persons having control of such devices or assemblies. Such devices or assemblies shall be tested <u>in accordance with Section 603.4.2 and WAC 246-290-490, at the time of installation, repair, or relocation and not less than on an annual schedule thereafter, or more often where required by the Authority Having Jurisdiction. Where</u> If found to be defective or inoperative, the device or assembly shall be repaired or replaced <u>replaced or repaired</u>. No device or assembly shall be removed from use or relocated or other device or assembly substituted, without the approval of the Authority Having Jurisdiction.</p> <p>Testing or maintenance shall be performed by a <u>Washington State Department of Health</u> certified backflow assembly tester or repairer certified in accordance with ASSE/IAPMO/ANSI Series 5000 or otherwise any other additional certification approved by the Authority Having Jurisdiction.</p>						
	Backflow Devices	Table 603.2	Table 603.2	It was felt that internal backflow protection was not adequate for beverage dispensers and independent backflow protection was needed. WSR 10-03-101	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	Significant change
	Remove "Backflow preventer for carbonated beverage dispensers (two independent check valves with a vent to the atmosphere)" from the table						
	Backflow Testing	603.4.2	603.4.2	<u>The RCW cites the DOH as the governing code over backflow devices and venting (pre-2000)</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	Significant change
	<p>603.4.2 Testing. The <u>For devices and assemblies other than those regulated by the Washington Department of Health in conjunction with the local water purveyor for the protection of public water systems, the authority having jurisdiction shall ensure that the</u> premise owner or responsible person shall have the backflow prevention assembly tested by a <u>Washington State Department of Health</u> certified backflow assembly tester.</p> <p><u>(1) At the time of installation, repair, or relocation; and</u></p>						

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				(2) Not less than At least on an annual schedule thereafter, or more often where unless more frequent testing is required by the Authority Having Jurisdiction. The periodic testing shall be performed in accordance with the procedures referenced in ASSE/IAPMO/ANSI Series 5000 by a tester qualified in accordance with these standards. The field test kit used shall comply with ASSE 1064.			
	Irrigation Backflow	603.5.6	603.5.6	<u>The RCW cites the DOH as the governing code over backflow devices and venting (pre-2000)</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	603.5.6 Protection from Lawn Sprinklers and Irrigation Systems. Potable water supplies to systems having no pumps or connections for pumping equipment, and no chemical injection or provisions for chemical injection, shall be protected from backflow by one of the following: <ol style="list-style-type: none"> (1) Atmospheric vacuum breaker (AVB). (2) Pressure vacuum breaker backflow prevention assembly (PVB). (3) Spill-resistant pressure vacuum breaker (SVB). (4) Reduced pressure principle backflow prevention assembly (RP). (5) <u>A valve complying with IAPMO PS 72.</u> (6) <u>A double check valve backflow prevention assembly (DC) may be allowed when approved by the water purveyor and the authority having jurisdiction.</u> 						
	Boiler Backflow	603.5.10	603.5.10	<u>New standards for health and safety, by using RP and airgaps as backflow devices WSR 13-04-054</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	603.5.10 Steam or Hot Water Boilers. Potable water connections to steam or hot water boilers shall be protected from backflow by a double check valve backflow prevention assembly, backflow preventer with intermediate atmospheric vent and pressure reducing valve, by an air gap or reduced pressure principle backflow prevention assembly in accordance with Table 603.2. Where chemicals are introduced into the system a reduced pressure principle backflow prevention assembly shall be provided in accordance with Table 603.2 backflow preventer.						
	Beverage Dispensers	603.5.12	603.5.12	It was felt that internal backflow protection was not adequate for beverage dispensers and independent backflow protection was needed. (pre-2000)	<u>Keep amendment existing</u>	<u>Keep existing amendment</u>	
	603.5.12 Beverage Dispensers. Potable water supply to carbonated beverage dispensers, carbonators, or coffee machines shall be protected by an air gap or a vented backflow preventer that complies with ASSE 1022a listed reduced pressure principle backflow preventer as approved by the authority having jurisdiction for the specific use. For carbonated beverage dispensers, piping material installed downstream of the backflow preventer shall not be copper, copper alloy, or other material that is affected by carbon dioxide gas. Non-carbonated beverage dispensers, such as ice makers and coffee machines, shall be protected by an air gap or dual check backflow preventer that comply with ASSE 1032 or ASSE 1024.						
	Plastic Pipe Termination	604.14	604.14	<u>Existing Prior 2003</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	

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	<u>604.14 Plastic Pipe Termination. Plastic water service piping may terminate within a building, provided the connection to the potable water distribution system shall be made as near as is practical to the point of entry and shall be accessible. Barbed insert fittings with hose clamps are prohibited as a transition fitting within the building.</u>						
	Discharge Piping	608.5	608.5	<u>Reformatting and rewording from model code lost in transition WSR 17-04-089.</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	<p>608.5 Discharge Piping. The discharge piping serving a temperature relief valve, pressure relief valve, or combination of both shall have no valves, obstructions, or means of isolation and be provided with the following:</p> <ol style="list-style-type: none"> (1) Not less than the size of the valve outlet and shall discharge full size to the flood level of the area receiving the discharge and pointing down. (2) Materials shall be rated at not less than the operating temperature of the system and approved for such use or shall comply with ASME A112.4.1. (3) Discharge pipe shall discharge independently by gravity through an air gap into the drainage system or outside of the building with the end of the pipe not exceeding 2 feet (610 mm) and not less than 6 inches (152 mm) above the ground and pointing downwards. (4) Discharge in such a manner that does not cause personal injury or structural damage. (5) No part of such discharge pipe shall be trapped or subject to freezing. (6) The terminal end of the pipe shall not be threaded. (7) Discharge from a relief valve into a water heater pan shall be prohibited. (8) The discharge termination point shall be readily observable. <p><u>Exception: Where no drainage was provided, replacement water heating equipment shall only be required to provide a drain pointing downward from the relief valve to extend between two (2) feet (610 mm) and six (6) inches (152 mm) from the floor. No additional floor drain need be provided.</u></p>						
	Pipe Insulation	609.12	609.12	<u>Was changed from 613, new code not adopted, instead language changed to align with WSEC WSR 15-16-099</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	<u>609.12 Pipe Insulation. Insulation of domestic hot water piping shall be in accordance with Section 609.12.1 and Section 609.12.2 Domestic water piping within commercial buildings shall be insulated in accordance with Section C404.6 of the Washington State Energy Code, as applicable.</u>						
	System Sizing	610.4	610.4	<u>Existing Prior 2003 originally filled 12/18/2001</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	<p>610.4 Sizing Water Supply and Distribution Systems. Systems within the range of Table 610.4 shall be permitted to may be sized from that table or by the method in accordance with Section 610.5.</p> <p>Listed parallel water distribution systems shall be installed in accordance with their listing, but at no time shall a portion of the system exceed the maximum velocities allowed by the code.</p>						

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	Drinking Water Treatment Units—Application	611.1	611.1	<u>Existing Prior 2003 originally filled 12/18/2001</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	<p>611.1 Application. <u>Drinking water treatment units shall comply with the applicable referenced standards in Table 611.1. Drinking water treatment units shall comply with NSF 42 or NSF 53. Water softeners shall comply with NSF 44. Ultraviolet water treatment systems shall comply with NSF 55. Reverse osmosis drinking water treatment systems shall comply with NSF 58. Drinking water distillation systems shall comply with NSF 62.</u></p> <p><u>The owner of a building that serves potable water to twenty-five or more people at least sixty or more days per year and that installs drinking water treatment units including, but not limited to, the treatment units in Section 611.1, may be regulated (as a Group A public water system) by the Washington State Department of Health under chapter 246-290 WAC. See Washington State Department of Health Publication 331-488 for guidance.</u></p>						
	Fire Sprinklers	612.1	612.1	<u>Clarifying that domestic water piping is required to meet the insulation requirements in the energy code WSR 12-16-082</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	
	<p>612.0 Residential Fire Sprinkler Systems.</p> <p>612.1 <u>Where Required General.</u> Where residential sprinkler systems are installed, they shall be installed in accordance with the International Building Code or International Residential Code.</p> <p>612.2 Types of Systems. This section shall apply to standalone and multipurpose wet pipe sprinkler systems that do not include the use of antifreeze. A multipurpose fire sprinkler system shall provide potable water to both fire sprinklers and plumbing fixtures. A stand-alone sprinkler system shall be separate and independent from the potable water distribution system. A backflow preventer shall not be required to separate a stand-alone sprinkler system from the water distribution system where the sprinkler system material is in accordance with the requirements of Section 604.0.</p> <p>612.3 Sprinklers. Sprinklers shall be installed in accordance with Section 612.3.1 through Section 612.3.7.</p> <p>612.4 Sprinkler Piping System.</p> <p>612.5 Sprinkler Piping Design.</p> <p>612.6 Instructions and Signs.</p> <p>612.7 Inspection and Testing.</p> <p><u>Sections 612.2 through 612.7.2 are not adopted.</u></p>						
Chapter 7 Sanitary Drainage							
51-56-0700	Chapter 7 — Sanitary Drainage						
	Drainage Piping	701.2	701.2	<u>Existing Prior 2003 originally filled 12/18/2001</u>	<u>Keep existing amendment</u>	<u>Keep existing amendment</u>	Typo in OTS copy in Item 2; references Table 1701.1
	<p>701.2 Drainage Piping. Materials for drainage piping shall be in accordance with one of the referenced standards in Table 701.2 except that:</p> <p>(1) No galvanized wrought-iron or galvanized steel pipe shall be used underground and shall be kept not less than 6 inches (152 mm) aboveground.</p>						

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				<p>(2) ABS and PVC DWV piping installations shall be installed in accordance with applicable standards referenced in Table 701.2 and Chapter 14 "Firestop Protection." Except for individual single-family dwelling units, materials exposed within ducts or plenums shall have a flame-spread index of not more than 25 and a smoke-developed index of not more than 50, where tested in accordance with ASTM E84 or UL 723. Plastic piping installed in plenums shall be tested in accordance with all requirements of ASTM E84 or UL 723. Mounting methods, supports and sample sizes of materials for testing that are not specified in ASTM E84 or UL 723 shall be prohibited.</p> <p>(3) No vitrified clay pipe or fittings shall be used aboveground or where pressurized by a pump or ejector. They shall be kept not less than 12 inches (305 mm) belowground.</p> <p>(4) Copper or copper alloy tube for drainage and vent piping shall have a weight of not less than that of copper or copper alloy drainage tube type DWV.</p> <p>(5) Stainless steel 304 pipe and fittings shall not be installed underground and shall be kept not less than 6 inches (152 mm) aboveground.</p> <p>(6) Cast-iron soil pipe and fittings and the stainless steel couplings used to join these products shall be listed and tested in accordance with standards referenced in Table 701.2. Such pipe and fittings shall be marked with the country of origin, manufacturer's name or registered trademark as defined in the product standards, the third party certifier's mark, and the class of the pipe or fitting.</p>			
	Commercial Sinks	704.3	704.3	Adopted to meet with Health Code requirements WSR 07-15-080	Keep existing amendment	Keep existing amendment	
				704.3 Commercial Sinks. Pot sinks, scullery sinks, dishwashing sinks, silverware sinks, and other similar fixtures shall be connected directly to the drainage system. A floor drain shall be provided adjacent to the fixture and shall be connected on the sewer side of the sink. No other drainage line shall be connected between the floor drain waste connection and the fixture drain. The fixture and floor drain shall be trapped and vented in accordance with this code. Except where specifically required to be connected indirectly to the drainage system, or when first approved by the authority having jurisdiction, all plumbing fixtures, drains, appurtenances, and appliances shall be directly connected to the drainage system of the building or premises.			
	Location	707.4	707.4	Providing clearance for mainence. WSR 15-16-099	Keep existing amendment	Keep existing amendment	
				<p>707.4 Location. Each horizontal drainage pipe shall be provided with a cleanout at its upper terminal, and each run of piping, that is more than 100 feet (30 480 mm) in total developed length, shall be provided with a cleanout for each 100 feet (30 480 mm), or fraction thereof, in length of such piping. An additional cleanout shall be provided in a drainage line for each aggregate horizontal change in direction exceeding 135 degrees (2.36 rad). A cleanout shall be installed above the fixture connection fitting, serving each urinal, regardless of the location of the urinal in the building.</p> <p>Exceptions:</p> <p>(1) Cleanouts shall be permitted to be omitted on a horizontal drain line less than 5 feet (1524 mm) in length unless such line is serving sinks or urinals.</p> <p>(2) Cleanouts shall be permitted to be omitted on a horizontal drainage pipe installed on a slope of 72 degrees (1.26 rad) or less from the vertical angle (one-fifth bend).</p> <p>(3) Excepting the building drain, its horizontal branches, kitchen sinks, and urinals, a cleanout shall not be required on a pipe or piping that is above the floor level of the lowest floor of the building.</p> <p>(4) An approved type of two-way cleanout fitting, installed inside the building wall near the connection between the building drain and the building sewer or installed outside of a building at the lower end of a building drain and extended to grade, shall be permitted to be substituted for an upper terminal cleanout.</p>			

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WAC	Title or Subject	2021 UPC #	2024 UPC #	Rationale	2024 Staff Recommendation	2024 TAG Member Recommendation	Other Comments
	Clearance	707.9	707.3	health, safety, and maintenance considerations as the justification. WSR 15-16-099.	Keep existing amendment	Keep existing amendment	The metric conversions are all off in the OTS copy
	707.9 Clearance. Each cleanout in piping 2 inches (50 mm) or less in size shall be so installed that there is a clearance of not less than 48-12 inches (457-305 mm) <u>by 18 inches (457 mm)</u> in front of the cleanout. Cleanouts in piping exceeding 2 inches (50 mm) shall have a clearance of not less than 24-18 inches (610-457 mm) <u>by 24 inches (610 mm)</u> in front of the cleanout. Cleanouts in under-floor piping shall be extended to or above the finished floor or shall be extended outside the building where there is less than 18 inches (457 mm) vertical overall, allowing for obstructions such as ducts, beams, and piping, and 30 inches of (762 mm) horizontal clearance from the means of access to such cleanout. No under-floor cleanout shall be located exceeding <u>5-20 feet (4524-6096 mm)</u> from an access door, trap door, or crawl hole.						
	Building Sewers	Part II	Part II	Existing Prior 2003 originally filled 12/18/2001 Existing Prior 2003 originally filled 12/18/2001	Keep existing amendment	Keep existing amendment	
	<u>Delete all of Part II (Sections 713 through 723, and Tables 717.1 and 721.1).</u>						
Chapter 9 Vents							
51-56-0900	Chapter 9—Vents						
	Circuit Vent Permitted	911.1	911.1	efficiency in plumbing design, cost savings, code modernization, and health and safety considerations. WSR 19-16-154	Keep existing amendment	Keep existing amendment	
	911.1 Circuit Vent Permitted. A maximum of eight floor-outlet water closets, showers, bathtubs, or floor drains fixtures connected to a horizontal branch shall be permitted to be circuit vented. Each trap arm fixture drain shall connect horizontally to the horizontal branch being circuit vented in accordance with Table 1002.2 . The horizontal branch shall be classified as a drain and a vent from the most downstream trap arm fixture drain connection to the most upstream trap arm fixture drain connection to the horizontal branch. <u>Given its grease-producing potential, restaurant kitchen equipment shall not be connected to a circuit vented system. Each trap arm shall connect horizontally to the horizontal branch being circuit vented in accordance with Table 1002.2.</u> Exception: Back-outlet and wall-hung water closets shall be permitted to be circuit vented provided that no floor-outlet fixtures are connected to the same horizontal branch. <u>Back-outlet and wall-hung water closets shall connect horizontally to the horizontal circuit vented drain.</u>						

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WAC	Title or Subject	2021 UPC #	2024 UPC #	Rationale	2024 Staff Recommendation	2024 TAG Member Recommendation	Other Comments
Chapter 11 Storm Drainage							
51-56-1100	Chapter 11—Storm Drainage						
	Material Uses	1101.4	1101.4	Original amendment removed the reference to the Firestop provisions chapter, which is not adopted since precedence goes to the building code. (pre-2000) The amendment was retained even though the installation standards were removed in 2015 and the base language was amended in 2018. WSR 16-02-044 .	IS 5 and IS 9 have not been in the code since the 2012 edition. Recommend going with the original intent and only removing the reference to Chapter 14.	Code Change Proposal	
	<p>1101.4 Material Uses. Pipe, tube, and fittings conveying rainwater shall be of such materials and design as to perform their intended function to the satisfaction of the Authority Having Jurisdiction. Conductors within a vent or shaft shall be of cast-iron, galvanized steel, wrought iron, copper, copper alloy, lead, Schedule 40 ABS DWV, Schedule 40 PVC DWV, stainless steel 304 or 316L [stainless steel 304 pipe and fittings shall not be installed underground and shall be kept not less than 6 inches (152 mm) aboveground], or other approved materials, and changes in direction shall be in accordance with the requirements of Section 706.0. ABS and PVC DWV piping installations shall be installed in accordance with applicable standards referenced in Chapter 17 and Chapter 14 "Firestop Protection." IS 5 and IS 9. Except for individual single-family dwelling units, materials exposed within ducts or plenums shall have a flame-spread index of not more than 25 and a smoke-developed index of not more than 50, where tested in accordance with ASTM E84 or UL 723. Plastic piping installed in plenums shall be tested in accordance with all requirements of ASTM E84 or UL 723. Mounting methods, supports and sample sizes of materials for testing that are not specified in ASTM E84 or UL 723 shall be prohibited.</p>						
	Secondary Drainage	1101.12.2	1101.12.2	There is no amended language in this section	Delete from WAC	Delete from WAC	
	1101.12.2 Secondary Drainage. Secondary (emergency) roof drainage shall be provided by one of the methods specified in Section 1101.12.2.1 or Section 1101.12.2.2.						
	Roof Scuppers or Open Side	1101.12.2.1	1101.12.2.1	to prevent roof ponding and structural instability by requiring robust overflow drainage	Keep existing amendment	Keep existing amendment	
	<p>1101.12.2.1 Roof Scuppers or Open Side. Secondary roof drainage shall be provided by an open-sided roof or scuppers where the roof perimeter construction extends above the roof in such a manner that water will be entrapped. An open-sided roof or scuppers shall be sized to prevent the depth of ponding water from exceeding that for which the roof was designed as determined by Section 1101.12.1. Scupper openings shall be not less than 4 inches (102 mm) high and have a width equal to the circumference of the roof drain required for the area served, sized in accordance with Table 1103.1-based on double the rainfall rate for the local area.</p> <p>Exception: Scupper openings shall be permitted to be sized for the normal rainfall rate where the structural design of the roof includes a ponding instability analysis in accordance with ASCE 7 for the additional ponding load resulting from twice the normal rainfall rate or a 15-minute duration/100-year return period storm. The analysis shall assume the primary drain system is blocked.</p>						

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WAC	Title or Subject	2021 UPC #	2024 UPC #	Rationale	2024 Staff Recommendation	2024 TAG Member Recommendation	Other Comments
	1101.13.3 Access. Cleanouts installed under concrete or asphalt paving shall be made accessible by yard boxes, or boxes, or extending flush with paving with approved materials and be adequately protected.						
	Manholes	1101.13.4	1101.13.4	Existing Prior 2003	Keep existing amendment	Keep existing amendment	
	1101.13.4 Manholes. Approved manholes may be installed in lieu of cleanouts when first approved by the authority having jurisdiction. The maximum distance between manholes shall not exceed three hundred (300) feet (91.4 m). The inlet and outlet connections shall be made by the use of a flexible compression joint no closer than twelve (12) inches (305 mm) to, and not farther than three (3) feet (914 mm) from the manhole. No flexible compression joints shall be embedded in the manhole base.						
	Vertical Conductors and Leaders	1103.1	1103.1	System could be undersized WSR 22-17-153	Keep existing amendment	Keep existing amendment	
	1103.1 Vertical Conductors and Leaders. Vertical conductors and leaders shall be sized by the maximum projected roof area and Table 1103.1. Vertical conductors and leaders for secondary roof drains shall be sized based on double the rainfall rate for the local area. Exception: Vertical conductors and leaders for secondary drainage systems shall be permitted to be sized for the normal rainfall rate where the structural design of the roof includes a ponding instability analysis in accordance with ASCE 7 for the additional ponding load resulting from twice the normal rainfall rate or a 15-minute duration/100-year return period storm. The analysis shall assume the primary drain system is blocked.						
	Size of Horizontal Storm Drains and Sewers	1103.2	1103.2	System could be undersized WSR 22-17-153	Keep existing amendment	Keep existing amendment	
	1103.2 Size of Horizontal Storm Drains and Sewers. The size of building storm drains, or building storm sewers or their horizontal branches shall be based on the maximum projected roof or paved area to be handled and Table 1103.2. Building storm drains, building storm sewers, or their horizontal branches receiving drainage from secondary roof drain systems shall be sized based on double the rainfall rate for the local area. Exception: Building storm drains, building storm sewers, or their horizontal branches receiving drainage from secondary drainage systems shall be permitted to be sized for the normal rainfall rate where the structural design of the roof includes a ponding instability analysis in accordance with ASCE 7 for the additional ponding load resulting from twice the normal rainfall rate or a 15-minute duration/100-year return period storm. The analysis shall assume the primary drain system is blocked.						
	Size of Roof Gutters	1103.3	1103.3	There is no amended language in this section WSR 22-17-153	Keep existing amendment	Keep existing amendment	
	1103.3 Size of Roof Gutters. The size of semi-circular gutters shall be based on the maximum projected roof area and Table 1103.3.						
	Side Walls Draining onto a Roof	1103.4	1103.4	System could be undersized WSR 22-17-153	Keep existing amendment	Keep existing amendment	
	1103.4 Side Walls Draining onto a Roof. Where vertical walls project above a roof to permit storm water to drain into the roof area below, the adjacent roof area shall be permitted to be computed from Table 1103.1 as follows: (1) For one wall – add 50 percent of the wall area to the roof area figures. (2) For two adjacent walls of equal height – add 35 percent of the total wall areas.						

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WAC	Title or Subject	2021 UPC #	2024 UPC #	Rationale	2024 Staff Recommendation	2024 TAG Member Recommendation	Other Comments
	<p>(3) For two adjacent walls of unequal height – add 35 percent of the total common height and add 50 percent of the remaining height of the highest wall.</p> <p>(4) Two opposite walls of same height – add no additional area.</p> <p>(5) Two opposite walls of differing heights – add 50 percent of the wall area above the top of the lower wall.</p> <p>(6) Walls on three sides – add 50 percent of the area of the inner wall below the top of the lowest wall, plus an allowance for the area of the wall above the top of the lowest wall, in accordance with Section 1103.4(3) and Section 1103.4(5) above.</p> <p>(7) Walls on four sides – no allowance for wall areas below the top of the lowest wall – add for areas above the top of the lowest wall in accordance with Section 1103.4(1), Section 1103.4(3), Section 1103.4(5), and Section 1103.4(6) above.</p> <p><u>(8) Secondary drainage systems for the adjacent roof area shall be sized based on double the rainfall rate for the local area.</u></p> <p><u>Exception: Secondary drainage systems for the adjacent roof area shall be permitted to be sized for the normal rainfall rate where the structural design of the roof includes a ponding instability analysis in accordance with ASCE 7 for the additional load resulting from twice the normal rainfall rate or a 15-minute duration/100-year return period storm. The analysis shall assume the primary drain system is blocked.</u></p>						
	Controlled Flow Roof Drainage	1105.0	1105.0	Existing prior 2003	Keep existing amendment	Keep existing amendment	
	<u>This section is not adopted.</u>						
Chapter 13 Health Care Facilities and Medical Gas and Vacuum Systems							
51-56-1300	Chapter 13—Health Care Facilities and Medical Gas and Vacuum Systems						
	Water supply for hospitals	1303.8	1303.8	Requirement to align with DOH Existing prior 2003	Keep existing amendment	Keep existing amendment	
	1303.8 Water Supply for Hospitals. Hospitals shall be provided with not less than two approved potable water <u>sources</u> <u>main</u> s that are installed in such a manner as to prevent the interruption of water service.						
	Med gas outlets and inlets	1305.3	1305.3	Existing prior 2003	Keep existing amendment	Keep existing amendment	
	1305.3 Minimum Station Outlets and Inlets. Station outlets and inlets for medical gas and vacuum systems <u>for facilities licensed or certified by Washington state department of health (DOH) or Washington state department of social and health services (DSHS) shall be provided as listed in chapters 246-320 and 246-330 WAC as required by the applicable licensing rules as applied by DOH construction review services. All other medical gas and medical vacuum systems</u> shall be provided as listed in Table 1305.3.						
Chapter 15 Alternate Water Sources for Nonpotable Applications							
51-56-1500	Chapter 15—Alternate Water Sources for Nonpotable Applications						
	Applicability	1501.1	1501.1	Removed to follow DOH Existing Prior 2023	Keep existing amendment	Keep existing amendment	
	1501.1 Applicability. The provisions of this chapter <u>and the Washington State Department of Health</u> shall apply to the construction, alteration, and repair of alternate water source systems for nonpotable applications.						
Chapter 16 Nonpotable Rainwater Catchment Systems							

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WAC	Title or Subject	2021 UPC #	2024 UPC #	Rationale	2024 Staff Recommendation	2024 TAG Member Recommendation	Other Comments
51-56-1500	Chapter 16—Nonpotable Rainwater Catchment Systems						
	Applicability	1601.1	1601.1	The 2009 Chapter 16 language is deleted and replaced with the 2012 UPC language for reclaimed water (New Chapter 16) and rainwater (New Chapter 17) systems. A few amendments were retained for consistency with other state agency requirements. WSR 10-03-101	Keep existing amendment	Keep existing amendment	
	1601.1 Applicability. The provisions of this chapter and the Washington State Department of Health shall apply to the installation, construction, alteration, and repair of nonpotable rainwater catchment systems.						
Chapter 17 Referenced Standards							
51-52-1700	Referenced standards						
	Add WAC 246-290-490 Washington State Department of Health Cross-connection Control Requirements Backflow Protection						