ORDINANCE NO. 219, 2025 OF THE COUNCIL OF THE CITY OF FORT COLLINS AMENDING CHAPTER 5, ARTICLE V, DIVISION 1 OF THE CODE OF THE CITY OF FORT COLLINS FOR THE PURPOSE OF REPEALING THE COLORADO PLUMBING CODE AND ADOPTING THE 2024 INTERNATIONAL PLUMBING CODE, WITH AMENDMENTS

- A. Since 1924, the City has reviewed, amended and adopted the latest nationally recognized building standards available for the times.
- B. Upon recommendation of City staff, the City Council has determined that it is in the best interests of the City to align eleven interconnected basic construction codes under one publication year.
- C. The eleven interconnected basic construction codes are the *International Building Code*, *International Residential Code*, *International Mechanical Code*, *International Fuel Gas Code*, *International Energy Conservation Code*, *International Property Maintenance Code*, *International Swimming Pool and Spa Code*, *International Existing Building Code*, *International Plumbing Code*, *International Fire Code*, and the *International Wildland-Urban Interface Code* to the extent adopted by the *Colorado Wildfire Resiliency Code*.
- D. The City Council has determined that the 2024 publication year of these interconnected basic construction codes should be adopted and that any counterpart *International* codes previously adopted should be repealed, both in order to align the publication years of the codes and because the 2024 publications contain improvements in construction code regulation.
- E. Previously, City Council adopted Ordinance No. 035, 2011, adopting the *Colorado Plumbing Code* (the "CPC") as published at 3 Colorado Code of Regulations 720-1, and codified the CPC at Section 5-125 of the Code of the City of Fort Collins, with local amendments thereto.
- F. The state's code update cycle is significantly delayed compared to the City's, and the CPC has not yet been updated to align with the 2024 International Plumbing Code.
- G. The City Council has determined that it is in the best interest of the health, safety and welfare of the City and its residents that the plumbing code of the City of Fort Collins be amended to adopt the 2024 International Plumbing Code and to repeal the previously adopted Colorado Plumbing Code, both to align with the publication years of the other construction codes and to update the requirements pertaining to maximum flow and water consumption.
- H. City staff has conducted a significant public outreach program, working with the regulated construction industry and building professionals.

- I. The adoption of the interconnected basic construction codes has been presented to community groups and feedback has been received from the Water Commission, Energy Board, Commission on Disability, Natural Resource Advisory Board, Poudre Fire Authority Board, Building Review Commission, Affordable Housing Board, and Air Quality Advisory Board.
- J. Pursuant to the City Charter, Article II, Section 7, City Council may enact any ordinance which adopts a code by reference in whole or in part provided that before adoption of such ordinance the Council hold a public hearing thereon and that notice of the hearing shall be published twice in a newspaper of general circulation published in the City, with one of such publications occurring at least eight (8) days preceding the hearing and the other publication occurring at least fifteen (15) days preceding the hearing.
- K. In compliance with City Charter, Article II, Section 7, the City Clerk published in the Fort Collins *Coloradoan* such notice of hearing concerning adoption of the 2024 International Codes on November 16, 2025, and November 25, 2025.
- L. Attached as <u>Exhibit A</u> and incorporated herein by reference is the Notice of Public Hearing dated November 16, 2025, that was so published and which the Council hereby finds meets the requirements of Article II, Section 7 of the City Charter.

In light of the foregoing recitals, which the Council hereby makes and adopts as determinations and findings, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF FORT COLLINS as follows:

- Section 1. The City Council hereby repeals the *Colorado Plumbing Code* and adopts the *2024 International Plumbing Code* as amended by this Ordinance.
- Section 2. Section 5-125 of the Code of the City of Fort Collins is hereby repealed and reenacted to read as follows:

Sec. 5-125. Adoption of standards.

Pursuant to the power and authority conferred on the City Council by Colorado Revised Statutes Section 31-16-202 and Article II, Section 7 of the Charter, the City Council has adopted the 2024 International Plumbing Code (2024 IPC) published by the International Code Council, second printing (May 2024), as amended by the City, which shall have the same force and effect as though set forth in full herein. The subject matter of the 2024 International Plumbing Code includes comprehensive provisions and standards regulating the installation, alteration or repair of plumbing and drainage systems in the City, for the purpose of protecting public health, safety, and general welfare. As provided in the 2024 International Plumbing Code, Appendices are not adopted except as expressly set forth in § 5-126.

Section 3. Section 5-126 of the Code of the City of Fort Collins is hereby repealed and reenacted to read as follows:

Sec. 5-126. Amendments and deletions to the 2024 International Plumbing Code.

The 2024 International Plumbing Code adopted in § 5-125 is amended as follows:

- 1. **Section 101.1 Title** is amended to read as follows:
 - **101.1 Title.** These regulations shall be known as the *Plumbing Code* of the City of Fort Collins, hereinafter referred to as "this code."
- 2. Section 102.8 Referenced codes and standards is amended to read as follows:
 - **102.8 Referenced codes and standards.** The codes and standards referenced in this code shall be those that are listed in Section 101.4 of the adopted *International Building Code*, entitled "Referenced Codes", and shall be considered as part of the requirements of this code to the prescribed extent of each such reference and as further regulated in Sections 102.8.1 and 102.8.2.
- 3. **Section 103 CODE COMPLIANCE AGENCY** is deleted in its entirety and replaced with the following:

SECTION 103 CODE ADMINISTRATION

- **103.1 Entity charged with code administration.** The entity charged with code administration shall be as determined in accordance with Section 103 of the adopted *International Building Code*, entitled "CODE ADMINISTRATION."
- 4. **Section 105.2 Exempt work** is amended to read as follows:
 - **105.2 Exempt work.** The following work shall be exempt from the requirement for a permit:
 - 1. The stopping of leaks in drains, water, soil, waste or vent pipe provided, however, that if any concealed trap, drainpipe, water, soil, waste or vent pipe becomes defective and it becomes necessary to remove and replace the same with new material, such work shall be considered as new work and a permit shall be obtained and inspection made as provided in this code.
 - 2. The clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, and the repair and replacement of garbage disposal units and dishwashers directly connected to the sanitary sewer system, including the necessary replacement of all tail pipes and traps, or the repair, maintenance, and replacement of sinks, faucets, drains, showers, tubs, and toilets, provided that such repairs do not involve or require the replacement or rearrangement of valves or pipes.

Exemption from the permit requirements of this code shall not be deemed to grant authorization for any work to be done in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

5. **SECTION 108 FEES** is deleted in its entirety and replaced with the following:

SECTION 108 FEES

- **108.1 Fees**. All items relating to fees shall be as specified in Section 109 of the adopted *International Building Code*, entitled "FEES."
- **108.2 Work commencing before permit issuance.** All items related to work commencing before permit issuance shall be made pursuant to the applicable provisions of Section 109.2 of the adopted *International Building Code*.
- 6. **SECTION 112 MEANS OF APPEAL** is deleted in its entirety and replaced with the following:

SECTION 112 MEANS OF APPEALS

- **112.1 General.** Appeals of decisions, determinations and interpretations of this code shall be made pursuant to the applicable provisions of Section 113 of the adopted *International Building Code*, entitled "MEANS OF APPEALS."
- 7. **SECTION 113 BOARD OF APPEALS** is deleted in its entirety.
- 8. **Section 114.4 Violation Penalties** is deleted in its entirety and replaced with the following:
 - **114.4 Violation penalties.** Any person who violates a provision of this code or fails to comply with any of the requirements thereof or who alters or repairs a building or structure in violation of the *approved* construction documents or directive of the code official, or of a permit or certificate issued under the provisions of this code, commits a civil infraction and is subject to the provisions contained in § 1-15(f) of the City Code. Each day that a violation continues shall be deemed a separate offense.
- 9. **SECTION 202 GENERAL DEFINITIONS** is amended to modify, or add, in alphabetical order, the following definitions:

. . .

CODE OFFICIAL. The officer or other designated authority charged with the administration and enforcement of this code, or a duly authorized representative. The term *code official* is interchangeable with the term *building official*.

. . .

DIRECT SUPERVISION. Direct supervision means that the supervising licensed master plumber, journeyman plumber, or residential plumber is physically present at the same physical addresses listed on the permits and where the apprentice is working or no more than five minutes distance from the apprentice.

. . .

FIXTURE DRAIN. That portion of a plumbing drainage system that connects the trap drain to any other drain pipe receiving the discharge from one or more plumbing fixtures.

. . .

GRAYWATER. Wastewater that, before being treated or combined with other wastewater, is collected from fixtures within residential, commercial, or industrial buildings or institutional facilities for the purpose of being put to beneficial uses. Sources of graywater are limited to discharges from bathroom and laundry room sinks, bathtubs, showers, and laundry machines. Graywater does not include the wastewater from toilets, urinals, kitchen sinks, dishwashers, or non-laundry utility sinks.

. . .

RECLAIMED WATER. Domestic wastewater that has received secondary treatment by a domestic wastewater treatment works (centralized system or a localized system) and such additional treatment as to enable the wastewater to meet the standards for approved uses.

. . .

TRAP DRAIN. That portion of horizontal piping between the weir of a trap and the point where it intersects with the vent serving that same trap (trap arm).

. . .

- 10. **Section 305.1 Protection against contact** is deleted in its entirety and replaced with the following:
 - **305.1 Protection against contact.** Piping except for cast iron, ductile iron, and galvanized steel shall not be placed in direct contact with steel framing members. Piping shall not be placed in direct contact with concrete or cinder walls and floors, other masonry, and corrosive soil. Where sheathing is used to prevent direct contact, the sheathing shall have a thickness of not less than 0.025 inch (0.64)

mm). Where sheathing protects piping that penetrates concrete or masonry walls or floors, the sheathing shall be installed in a manner that allows movement of the piping within the sheathing.

11. **Section 308.5 Interval of support** is amended to read as follows:

308.5 Interval of support. Pipe shall be supported in accordance with Table 308.5(1). Hanger support rods shall be sized in accordance with Table 308.5(2).

Exception: The interval of support for piping systems designed to provide for expansion/contraction shall conform to the engineered design in accordance with Section 316.1.

TABLE 308.5 HANGER SPACING is amended to read as follows:

TABLE 308.5(1) HANGER SPACING			
PIPING MATERIAL	MAXIMUM HORIZONTAL SPACING (feet)	MAXIMUM VERTICAL SPACING (feet)	

13. A new TABLE 308.5(2) HANGER ROD SIZE is added to read as follows:

TABLE 308.5(2) HANGER ROD SIZE		
Pipe and Tube Size	Rod Size	
1/2" – 4"	3/8"	
5" – 8"	1/"	
10" – 12"	5/8"	

14. **Section 308.7.1 Location** is amended to read as follows:

308.7.1 Location. For pipe sizes greater than 4 inches (102 mm), restraints shall be provided for drain pipes utilizing mechanical joints at all changes in direction and at all changes in diameter greater than two pipe sizes. Braces, blocks, rodding and other suitable methods as specified by the coupling manufacturer shall be utilized.

15. **Section 308.9 Parallel water distribution systems** is amended to read as follows:

308.9 Parallel water distribution systems. Piping bundles for manifold systems shall be supported in accordance with Table 308.5(1). Support at changes in direction shall be in accordance with the manufacturer's instructions. Where hot water piping is bundled with cold water piping, hot water piping shall be insulated in accordance with Section 607.5.

16. **Section 312.1 Required tests** is amended to read as follows:

312.1 Required tests. The permit holder shall make the applicable tests prescribed in Sections 312.2 through 312.11 to determine compliance with the provisions of this code. The permit holder shall give reasonable advance notice to the code official when the plumbing work is ready for tests. The equipment, material, power and labor necessary for the inspection and test shall be furnished by the permit holder and he or she shall be responsible for determining that the work will withstand the test pressure prescribed in the following tests. Plumbing system piping shall be tested with either water or by air.

17. **Section 312.3 Drainage and vent air test** is amended to read as follows:

312.3 Drainage and vent air test. An air test shall be made by forcing air into the system until there is a uniform gauge pressure of 5 psi (34.5 kPa) or sufficient to balance a 10-inch (254 mm) column of mercury. This pressure shall be held for a test period of not less than 15 minutes. Any adjustments to the test pressure required because of changes in ambient temperatures or the seating of gaskets shall be made prior to the beginning of the test period.

- 18. Section 312.4 Drainage and vent vacuum test is deleted in its entirety.
- 19. Section 312.6 Water supply system test is amended to read as follows:

312.6 Water supply system test. Upon completion of a section of or the entire water supply system, the system, or portion completed, shall be tested and proved tight under a water pressure not less than the working pressure of the system; or by an air test of not less than 50 psi (344 kPa). This pressure shall be held for not less than 15 minutes. The water utilized for tests shall be obtained from a potable source of supply. The required tests shall be performed in accordance with this section and Section 111.

- 20. **Section 312.10 Shower liner test** is deleted in its entirety.
- 21. **Section 312.11.2 Testing** is amended to read as follows:

312.11.2 Testing. Reduced pressure principle, double check, pressure vacuum breaker, reduced pressure detector fire protection, double check detector fire protection, and spill-resistant vacuum breaker backflow preventer assemblies and hose connection backflow preventers shall be tested at the time of installation, immediately after repairs or relocation and at least annually by a certified cross connection control technician, in accordance with the applicable testing procedures associated with each specific certifying agency. When applicable, the testing procedure shall be performed for the identified backflow prevention assembly in its entirety in accordance with one of the following applicable standards: ASSE 5013, ASSE 5015, ASSE 5020, ASSE 5047, ASSE 5048, ASSE 5052, ASSE 5056, CSA B64.10, CSA B64.10.1 or

the testing procedures provided in the 10th Edition Manual of Cross-Connection Control from the University of Southern California's Foundation for Cross-Connection Control and Hydraulic Research.

22. A new **SECTION 317 GRAYWATER** is added to read as follows:

SECTION 317 GRAYWATER

317.1 General. Graywater use shall comply with Article V, Division 3 of the City Code and other applicable sections of this code.

23. **Section 403.1 Minimum number of fixtures** is amended to read as follows:

403.1 Minimum number of fixtures. Plumbing fixtures shall be provided in the minimum number as shown in Table 403.1, based on the actual use of the building or space. Uses not shown in Table 403.1 shall be considered individually by the code official. The number of occupants shall be determined by the *International Building Code*. Lavatory to water closet or urinal ratios in accordance with Table 403.1 shall be maintained in all restrooms.

24. **Section 405.3.2 Public layatories** is amended to read as follows:

405.3.2 Public lavatories. In employee and *public* toilet facilities, the required lavatory shall be located in the same room as the required water closet.

Exception: Lavatories located outside a toilet room located within a classroom serving students from that classroom only. These toilet rooms and lavatories shall not count toward the total fixture count required by Table 403.1.

25. **Section 410.4 Substitution** is amended to read as follows:

410.4 Substitution. Where restaurants or spaces classified as an A2 occupancy provide drinking water in a container free of charge, drinking fountains shall not be required in these restaurants and A2 occupancies. In other *occupancies* where three or more drinking fountains are required, *water dispensers* shall be permitted to be substituted for not more than 50 percent of the required number of drinking fountains.

26. A new **Section 421.7 Shower head location** is added to read as follows:

421.7 Shower head location. Showerheads shall be located on the sidewall of shower compartments or be arranged so the shower head does not discharge directly at the entrance to the compartment and the bather can adjust the valve prior to stepping into the shower spray.

Exception: Showers of the roll in type installed in accordance with 2009 ANSI A117.1.

- 27. A new **Section 421.8 Shower valve location** is added to read as follows:
 - **421.8 Shower valve location.** A shower or tub/shower control valve shall be installed only where the spout and/or shower head discharges into an approved tub or shower compartment.

Exception: Emergency Showers.

- 28. **Section 425.3 Water closet seats** is amended by adding a new exception to read as follows:
 - **425.3 Water closet seats.** Water closets shall be equipped with seats of smooth, nonabsorbent material. Seats of water closets provided for *public* or employee toilet facilities shall be of the hinged open-front type. Integral water closet seats shall be of the same material as the fixture. Water closet seats shall be sized for the water closet bowl type.

Exception: Water closets installed in public restrooms for the purpose of complying with accessible fixtures as required by Section 404 fitted with the "AXS-Wingman Universal Design Water Closet Seat" having a closed front are allowed.

- 29. A new **Section 504.6.1 Collection of relief valve discharge** is added to read as follows:
 - **504.6.1 Collection of relief valve discharge.** A means shall be provided to capture the discharge from a relief valve and convey it to the sanitary drainage system or exterior of the structure either by gravity or a pumped discharge.

Exceptions:

- 1. Replacements for existing water heaters.
- 2. Where a water sensing device wired to a normally closed solenoid valve installed in the water supply piping to the heater is placed within the water heater drain pan.
- 30. A new **Section 504.6.1.1 Pumped discharge of relief valve collection** is added to read as follows:
 - **504.6.1.1 Pumped discharge of relief valve collection.** Pumps used to discharge the clear water collection of relief valves shall have an operating temperature equal to or exceeding that of the relief valve discharge temperature and shall have a gpm rating equal to or greater than the discharge of the relief valve.
- 31. **Section 504.7 Required pan** is amended to read as follows:
 - 504.7 Required pan. Where a storage tank-type water heater or a hot water

storage tank is installed in a location where water leakage from the tank will cause damage, the tank shall be installed in a pan constructed of one of the following:

- 1. Galvanized steel or aluminum of not less than 0.0236 inch (0.6010 mm) in thickness.
- 2. Plastic not less than 0.036 inch (0.9 mm) in thickness.
- 3. Other *approved* materials.

A plastic pan installed beneath a gas-fired water heater shall be constructed of material having a flame spread index of 25 or less and a smoked-developed index of 450 or less when tested in accordance with ASTM E84 or UL723.

Water heaters installed in pans shall comply with Section 314.2.3.2.

Unless the pan is constructed of material having a flame spread index of 25 or less and a smoke-developed index of 450 or less when tested in accordance with ASTM E84 or UL 723.

Exception: Replacements for water heaters that did not have a pan previously installed to code in effect at the time of original installation.

- 32. **Section 603.1 Size of water service pipe** is amended to read as follows:
 - **603.1 Size of water service pipe**. The water service pipe shall be sized to supply water to the structure in the quantities and at the pressures required in this code. The water service pipe shall not be less than ¾ inch (19.1 mm) in diameter. In residential occupancies, the water service pipe shall be sized according to Appendix E.
- 33. A new **Section 603.1.1 Water service line freeze protection** is added to read as follows:
 - **603.1.1 Water service line freeze protection**. Water service lines shall be protected from freezing by being installed 54 inches deep below grade or by other approved methods.
- 34. **Section 604.1 General** is amended to read as follows:
 - **604.1 General**. The design of the water distribution system shall conform to accepted engineering practice. Methods utilized to determine pipe sizes shall be approved. In residential occupancies, the water distribution system shall be sized according to Appendix E.
- 35. Section 604.4 Maximum flow and water consumption and TABLE 604.4 MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES AND FIXTURE FITTINGS are amended to read as follows, with the exceptions being deleted in their entirety:

604.4 Maximum flow and water consumption. The maximum water consumption flow rates and quantities for all plumbing fixtures and fixture fittings shall be in accordance with Table 604.4, and such fixtures and fittings shall be Environmental Protection Agency (EPA) WaterSense® labeled fixtures, excluding fixtures and fixture fittings that are not labeled under the WaterSense® program.

TABLE 604.4 MAXIMUM FLOW RATES AND CONSUMPTION FOR PLUMBING FIXTURES AND FIXTURE FITTINGS			
PLUMBING FIXTURE OR FIXTURE FITTING	MAXIMUM FLOW RATE OF QUANTITY		
Lavatory faucet, private	0.5 gallon per minute at 60 psi for non-residential occupancy		
	1.5 gallons per minute at 60 psi for Groups R and I occupancies		
Lavatory faucet, public (metering)	0.25 gallon per metering cycle		
	minimum 10 second cycle setting for water run time		
Shower head a,c (includes handheld)	1.8 gallons per minute at 80 psi		
	2.0 gallons per minute at 80 psi for Groups I and E occupancies		
Sink faucet	1.8 gallons per minute at 60 psi		
Urinal	0.5 gallons per flushing cycle		
Residential Water closet	1.1 gallons per flushing cycle, with minimum MaP (solid-waste removal performance threshold) of 600 grams. Dual Flush gallons per flushing cycle: Average of three flushes (two reduced flushes and one full flush). 1.28 gallons per flushing cycle water closet allowed for existing buildings not increasing the building size.		
Commercial Water Closet	1.28 gallons per flushing cycle, with minimum MaP (solid-waste removal performance threshold) of 600 grams. Dual Flush gallons per flushing cycle: Average of three flushes (two reduced flushes and one full flush)		
Pre-rinse Spray Valves (food service)	Must meet federal Department of Energy WaterSense® criteria per 10 CFR 431, subpart O		
Bar sinks (food service)	2.2 gallons per minute at 60 psi		

For SI: 1 gallon = 3.785 L, 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

36. **Section 605.15.2 Solvent cementing** is deleted in its entirety.

a. A hand-held shower spray is a shower head.

b. Consumption tolerances shall be determined from referenced standards.

Shower heads shall comply with all requirements for high-efficiency showerheads in ASME A112.18.1-2020/CSA B125.1

37. **Section 608.9.1 Signage required** is deleted in its entirety and replaced with the following:

608.9.1 Signage required.

1. Plumbing fixtures flushed with nonpotable water shall be identified with signage that reads as follows:

"Nonpotable water is used to flush this fixture. CAUTION: NONPOTABLE WATER – DO NOT DRINK."

In addition to the required wordage, the pictograph shown in Figure 608.8.1 shall appear on the required signage.

2. A permanent warning sign must also be visible at all fixtures from which graywater is collected. The sign must state that:

"WATER FROM THIS FIXTURE IS REUSED. CHEMICALS, EXCRETA, PETROLEUM OILS AND HAZARDOUS MATERIALS MUST NOT BE DISPOSED DOWN THIS DRAIN."

- 3. For both types of fixtures indicated in subsections 1.2(E)(1)(b)(1)(i) and (ii), the words shall be legibly and indelibly printed on a tag or sign constructed of corrosion-resistant waterproof material or shall be indelibly printed on the fixture. The letters of the words shall be not less than 0.5 inch (12.7 mm) in height and in colors in contrast to the background on which they are applied.
- 38. **Section 608.9.2 Distribution pipe labeling and marking** is deleted in its entirety and replaced with the following:
 - **608.9.2 Distribution pipe labeling and marking.** Nonpotable distribution piping shall be purple in color or the piping shall be installed with a purple identification tape or wrap the entire length of the piping and shall be embossed, or integrally stamped or marked, with the words: "CAUTION: NONPOTABLE WATER DO NOT DRINK".
- 39. A new **Section 608.17.2.1 Essentially nontoxic fluid conditioning chemical** is added to read as follows:
 - **608.17.2.1 Essentially nontoxic fluid conditioning chemical.** When the conditioning chemical introduced is an essentially nontoxic transfer fluid the potable supplier to the boiler shall, at a minimum, be equipped with a backflow preventer with an intermediate atmospheric vent complying with ASSE 1012 or CSA B64.3.

40. A new Section 608.17.11 Connection to graywater system or reclaimed water system is added to read as follows:

608.17.11 Connection to graywater system or reclaimed water system. The potable water system connection to a graywater system must be protected against backflow by an air gap or reduced pressure principle backflow prevention assembly.

- 41. **Section 705.10.2 Solvent cementing** is deleted in its entirety.
- 42. **Section 706.3 Installation of fittings** is amended to read as follows:

. . .

Exception: Back-to-back water closet connections to double sanitary tees shall be permitted where the horizontal developed length between the outlet of the water closet and the connection to the double sanitary tee pattern is 18 inches (457 mm) or greater. Fixture crosses will not be required to meet this exception.

43. **TABLE 706.3 FITTINGS FOR CHANGE IN DIRECTION** is amended by deleting footnotes a and b:

TABLE 706.3 FITTINGS FOR CHANGE IN DIRECTION			
TYPE OF FITTING	CHANGE IN DIRECTION		
PATTERN	Horizontal to vertical	Vertical to horizontal	Horizontal to horizontal
Quarter bend	Х	Χ	Χ
Short sweep	Χ	Χ	Χ
For Oh 4 in the OF 4 years	• • •		

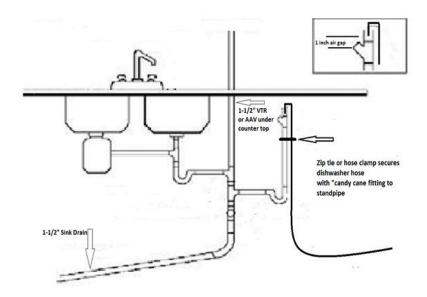
For SI: 1 inch = 25.4 mm.

- 44. **Section 708.1.3 Building drain and building sewer junction** is amended to read as follows:
 - **708.1.3 Building drain and building sewer junction.** The junction of the building drain and the building sewer shall be served by a cleanout that is located at the junction or within 10 feet (3048 mm) of the developed length of piping upstream of the junction. For the requirements of this section, the removal of the water closet shall not be required to provide cleanout access. When the cleanout is installed at the junction of the building drain and building sewer, it shall be an approved two way fitting with a single riser not to exceed 4 feet in depth or a two riser cleanout using back to back combination fittings

c. For a limitation on double sanitary tees, see Section 706.3.

or equal of schedule 40 material.

- 45. A new **Section 802.1.8 Domestic dishwashing machines** is added to read as follows:
 - **802.1.8 Domestic dishwashing machines.** Domestic dishwashing machines may be connected to a separately trapped stand pipe provided with an air break (with drain hose secured to the underside of the counter top) or air gap as shown in the illustration below. Refer to Section 409.4 for additional waste connections.



- 46. **Section 802.3 Installation** is amended to read as follows:
 - **802.3 Installation.** Indirect waste piping shall discharge through an *air gap* or *air break* into a waste receptor. Waste receptors shall be trapped and vented and shall connect to the building drainage system.

Exception: Where a waste receptor receives only clearwater waste and does not directly connect to a sanitary drainage system, the receptor shall not require a trap.

- 47. **Section 802.4 Waste receptors** is amended by adding a new exception to read as follows:
 - **802.4 Waste receptors.** For other than hub drains that receive only clear-water waste and standpipes, a removable strainer or basket shall cover the outlet of waste receptors. Waste receptors shall not be installed in concealed spaces. Waste receptors shall not be installed in plenums, crawl spaces, attics, interstitial spaces above ceilings and below floors. *Ready access* shall be provided to waste receptors.

Exception: Where equipment is installed in a crawl space, a waste receptor shall be allowed with an approved backwater valve installed.

- 48. **Section 903.1.1 Roof extension unprotected** is amended to read as follows:
 - **903.1.1 Roof extension unprotected.** Open vent pipes that extend through a roof shall be terminated not less than 6 inches (mm) above the roof.
- 49. **Section 903.2 Frost closure** is deleted in its entirety.
- 50. **Section 912.1 Horizontal wet vent permitted** is amended by adding a new exception to read as follows:
 - **912.1 Horizontal wet vent permitted.** Any combination of fixtures within two bathroom groups located on the same floor level is permitted to be vented by a horizontal wet vent. The wet vent shall be considered to be the vent for the fixtures and shall extend from the connection of the dry vent along the direction of the flow in the drain pipe to the most downstream fixture drain connection to the horizontal branch drain. Each wet-vented fixture drain shall connect independently to the horizontal wet vent. Only the fixtures within the bathroom groups shall connect to the wet-vented horizontal branch drain. Any additional fixtures shall discharge downstream of the horizontal wet vent.

Exception: Fixtures other than those considered to be bathroom group fixtures, of equivalent drainage fixture units, may be included in the wet vented section provided the total number of drainage fixture units does not exceed the total number included in two bathroom groups and the fixtures not considered bathroom fixtures are valued at one drainage fixture unit or less.

51. **Section 1002.1 Fixture traps** is amended by adding a new exception #5 to read as follows:

. . .

Exceptions:

. . .

- 5. Trench and floor drains connected to a sand oil interceptor need not be individually trapped provided the drain piping from the trench or floor drains is turned down after entering the interceptor so the discharge point is a minimum of 4 inches below the standing water level of the interceptor.
- 52. **Section 1003.1 Where required** is amended by adding a new exception to read as follows:

1003.1 Where required. Interceptors and separators shall be provided to prevent the discharge of oil, grease, sand and other substances harmful or hazardous to the *public sewer*, the private sewage system or the sewage treatment plant or processes.

Exception: Where special regulations exist by the local wastewater and/or sanitation district into which the grease trap or interceptor effluent is transported and/or treated. These regulations may supersede this requirement.

53. **Section 1003.3.2 Food waste disposers restriction** is amended to read as follows:

1003.3.2 Food waste disposers restriction. A food waste disposer shall not discharge to a grease interceptor, except when using a gravity interceptor equal to or greater than 500 gallon capacity.

54. **Section 1101.3 Prohibited drainage** is amended to read as follows:

1101.3 Prohibited drainage. Storm water shall not be drained into *sewers* intended for sewage only. Storm water from roof drains shall not discharge over public walkways except when an approved grated trough or trench drain sized to accept the calculated discharge is installed in the walkway. The discharge shall be diverted vertically from a height not greater than 12 inches to the grate.

Exception: Secondary drains.

55. **Section 1301.2.2 Filtration Required** is amended to read as follows:

1301.2.2 Filtration required. Nonpotable water utilized for water closet and urinal flushing applications shall be filtered by a 100-micron (0.1 mm) or finer filter.

Exception: Reclaimed water sources shall not be required to comply with these requirements. Graywater treatment systems installed in accordance with Article V, Division 3 of City Code do not need to meet additional filtration requirements.

56. A new **Section 1301.3.1 Distribution pipe labeling and marking** is added to read as follows:

1301.3.1. Distribution pipe labeling and marking. Nonpotable distribution piping shall comply with Section 608.9.2.

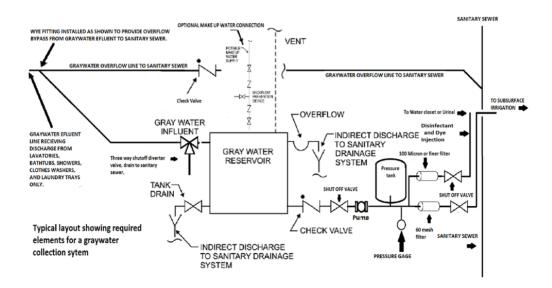
57. A new **Section 1301.3.2 Signage required graywater treatment works** is added to read as follows:

1301.3.2 Signage required graywater treatment works. For each room that contains graywater treatment works components, a sign that says "CAUTION GRAYWATER TREATMENT WORKS, DO NOT DRINK, DO NOT CONNECT TO THE POTABLE DRINKING WATER SYSTEM. NOTICE: CONTACT BUILDING MANAGEMENT BEFORE PERFORMING ANY WORK ON THIS WATER SYSTEM" must be posted on any door providing entrance to the room.

58. A new **Figure 1301.4 TYPICAL GRAYWATER COLLECTION SYSTEM** is added to read as follows:

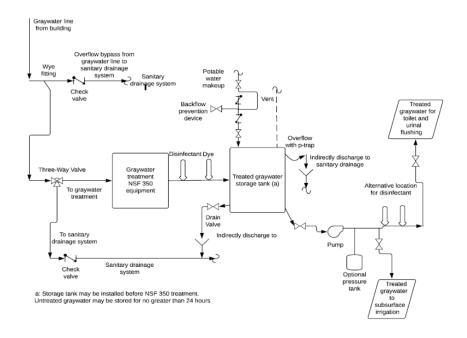
Figure 1301.4 TYPICAL GRAYWATER COLLECTION SYSTEM

(This figure is typical only, not a schematic)



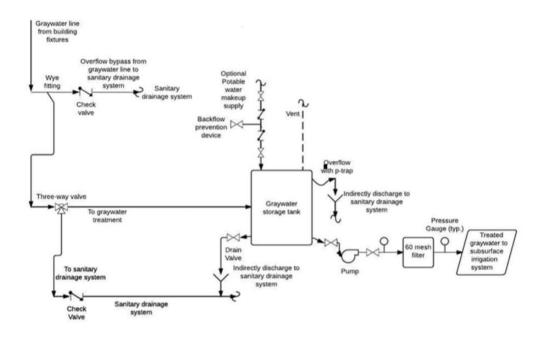
59. A new **Figure 1301.5 TYPICAL GRAYWATER SYSTEM FOR TOILET AND URINAL FLUSHING** is added to read as follows:

Figure 1301.5 TYPICAL GRAYWATER SYSTEM FOR TOILET AND URINAL FLUSHING



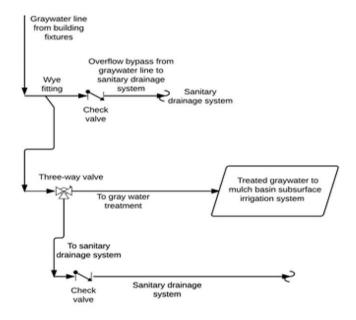
60. A new Figure 1301.6 TYPICAL GRAYWATER SYSTEM FOR DISBURSED SUBSURFACE IRRIGATION SYSTEM is added to read as follows:

Figure 1301.6 TYPICAL GRAYWATER SYSTEM FOR DISBURSED SUBSURFACE IRRIGATION SYSTEM



61. A new Figure 1301.7 TYPICAL GRAYWATER SYSTEM FOR MULCH BASIN SUBSURFACE IRRIGATION is added to read as follows:

Figure 1301.7 TYPICAL GRAYWATER SYSTEM FOR MULCH BASIN SUBSURFACE IRRIGATION



62. **Section 1301.9.2 Materials** is amended by adding an exception to read as follows:

1301.9.2 Materials. Where collected on-site, water shall be collected in an *approved* tank constructed of durable, nonabsorbent and corrosion-resistant materials. The storage tank shall be constructed of materials compatible with any disinfection systems used to treat water upstream of the tank and with any systems used to maintain water quality in the tank. Wooden storage tanks that are not equipped with a makeup water source shall be provided with a flexible liner.

Exception: Tanks are not required if the graywater use is comprised of only subsurface irrigation and flows into a mulch basin system, where the mulch basin volume is three times the anticipated average daily flow.

63. **Section 1301.9.5 Overflow** is deleted in its entirety and replaced with the following:

Section 1301.9.5 Overflow. The storage tank shall be equipped with an overflow pipe having a diameter not less than that shown in Table 606.5.4. The overflow pipe shall be protected from insects or vermin. The overflow drain shall not be equipped with a shutoff valve and shall discharge into the sanitary sewer either directly, or indirectly with a trap in the drain line to keep odors from escaping the tank. A cleanout shall be provided on each overflow pipe in accordance with Section 708.

64. **Section 1301.9.8 Draining of tanks** is amended to read as follows:

- **1301.9.8 Draining of tanks.** Tanks shall be provided with a means of emptying the contents for the purpose of service or cleaning. Tanks shall be drained by using a pump or by a drain located at the lowest point in the tank. The tank drain pipe shall discharge into the sanitary sewer either directly, or indirectly with a trap in the drain line to keep odors from escaping the tank and shall not be smaller in size than specified in Table 606.5.7. Not less than one cleanout shall be provided on each drain pipe in accordance with Section 708.
- 65. **Section 1301.11 Trenching requirements for nonpotable water piping** is deleted in its entirety.
- 66. **Section 1301.12 Outdoor outlet access** is deleted in its entirety.
- 67. **Section 1302.1 General** is amended to read as follows:
 - **1302.1 General.** The provisions of ASTM E2635 and Section 1302 shall govern the construction, installation, alteration and repair of on-site nonpotable water reuse systems for the collection, storage, treatment and distribution of on-site sources of nonpotable water as permitted by the jurisdiction. All plumbing systems utilizing nonpotable water reuse systems shall have a reduced pressure backflow preventer device installed at the water service entrance immediately downstream of the building water service shut off valve.
- 68. **Section 1302.6.1 Graywater used for fixture flushing** is amended to read as follows:
 - **1302.6.1 Graywater used for fixture flushing.** Graywater used for flushing water closets and urinals shall be disinfected and treated by an on-site water reuse treatment system complying with NSF 350. Graywater used for toilet and urinal flushing shall be dyed with blue or green food grade vegetable dye and be visibly distinct from potable water.
- 69. A new **Section 1302.7.3 Overflow** is added to read as follows:
 - **1302.7.3 Overflow.** Storage tank for on-site nonpotable systems must include an overflow line without a shut off valve. The overflow line shall be connected to the sanitary sewer indirectly. The overflow line must be the same or larger diameter line than the tank influent line. The overflow line connected indirectly must be trapped to prevent the escape of gas vapors from the tank.
- 70. A new **Section 1302.7.4 Venting** is added to read as follows:
 - **1302.7.4 Venting.** Storage tank for on-site nonpotable systems must be vented. Indoor tanks must be vented to the atmosphere outside the building or connected to the plumbing vent system.

71. A new **Section 1302.7.5 Tank drains** is added to read as follows:

1302.7.5 Tank drains. Storage tank for on-site nonpotable systems must include a valved drain. The drain shall be indirectly connected to the sanitary sewer. The tank drainline must be the same or larger diameter line than the tank influent line.

72. **Section 1302.8.1 Bypass valve** is amended to read as follows:

1302.8.1 System bypass. One three-way diverter valve listed and labeled to NSF 50 or other approved device shall be installed on collection piping upstream of any graywater treatment equipment, as applicable, to divert untreated on-site reuse sources to the sanitary sewer to allow servicing and inspection of the system. Bypass valves shall be installed downstream of fixture traps and vent connections. Bypass valves shall be marked to indicate the direction of flow, connection graywater treatment works, storage tank and graywater subsurface irrigation systems. Bypass valves shall be installed in accessible locations. Two shutoff valves shall not be installed to serve as a bypass valve. In addition to the bypass valve a series of drainage fittings shall be installed in the collection piping upstream of the bypass valve in a configuration that will allow the graywater from the plumbing fixtures to automatically flow directly into the sanitary sewer system in the event the filter or other parts of the collection system become clogged to the point of not allowing the effluent free flow through the system. The overflow line connected to the sanitary sewer shall be equipped with a backwater valve.

- 73. SECTION 1303 NONPOTABLE RAINWATER COLLECTION AND DISTRIBUTION SYSTEMS is deleted in its entirety.
- 74. **CHAPTER 14 SUBSURFACE GRAYWATER SOIL ABSORPTION SYSTEMS** is deleted in its entirety.
- 75. **Appendix E Sizing of Water Piping System** is adopted in its entirety, and is amended to read as follows:

. . .

E102.2.1 Fixture demand. Estimate the supply demand of the building main and the principal branches and risers of the system by totaling the corresponding demand from the applicable parts of Table E103.3(2) and Table E103.3(2)(a).

Exception: For apartment houses and vacation timeshares, the supply demand for fixtures and appliances listed in Table E103.3(2)(a) shall be estimated using the International Association of Plumbing and Mechanical Officials Water Demand Calculator. The supply demand for other fixtures in these occupancies shall be estimated using Tables E103.3(2) and

E103.3(3). The peak flow rates shall be added together, and the total added to the continuous demand.

Note: The requirements listed in this exception are based on the technical paper entitled "Peak Water Demand Study," published by the International Association of Plumbing and Mechanical Officials on October 2024 (IAPMO Study 4-2-24). Both the Water Demand Calculator and a copy of this technical paper are available for download at: https://www.iapmo.org/water-demand-calculator/.

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TABLE E103.3(2)(a) DESIGN FLOW RATES FOR USE WITH THE WATER DEMAND CALCULATOR IN RESIDENTIAL OCCUPANCIES			
FIXTURE AND APPLIANCES	MAXIMUM DESIGN FLOW RATE		
Bar Sink	1.5 gallons per minute		
Bathtub	5.5 gallons per minute		
Bidet	2.0 gallons per minute		
Clothes Washer	3.5 gallons per minute		
Combination Bath/Shower	5.5 gallons per minute		
Dishwasher	1.3 gallons per minute		
Kitchen	1.8 gallons per minute		
Laundry and Bar Sink Faucets	1.8 gallons per minute		
Lavatory Faucet	1.5 gallons per minute		
Shower, per head	1.8 gallons per minute		
Water Closet, 128 GPF, Gravity Tank	1.1 gallons per flush		
For SI units: 1 gallon per minute = 0.06 L/s.			

. . .

Section 4. The codifier of the Code of the City of Fort Collins is hereby directed to amend all existing cross references in the City Code and the Land Use Code in accordance with the provisions of this ordinance.

Section 5. The City Attorney and the City Clerk are hereby authorized to modify the formatting and to make such other amendments to this Ordinance as necessary to facilitate publication in the Fort Collins City Code; provided, however, that such modifications and amendments shall not change the substance of the Code provisions.

	nsidered favorably on eading for final passage	•	2025,	and
		Mayor		
ATTEST:				
City Clerk				
Effective Date: Decem Approving Attorney: M	•			

Exhibit A – Notice of Publication

Exhibit: