



**2022 CITY OF SCOTTSDALE AMENDMENTS
TO THE
INTERNATIONAL PLUMBING CODE,
2021 EDITION**

Ordinance No. 4550, Resolution No. 12501

**2022 City of Scottsdale Amendments
to the International Plumbing Code, 2021 Edition**

**SCOTTSDALE REVISED CODE
CHAPTER 31 – BUILDING AND CONSTRUCTION REGULATIONS**

ARTICLE IV. INTERNATIONAL PLUMBING CODE

Sec. 31-80. Adoption of International Plumbing Code.

The International Plumbing Code (IPC), 2021 Edition, including Appendices B, D and E, as published by the International Code Council, Inc., declared a public record by city Resolution No. 12501, are adopted by reference as part of the city Building Code.

Sec. 31-81. IPC CHAPTER 1 SCOPE AND ADMINISTRATION - amendments.

Only the following portions of CHAPTER 1, SCOPE AND ADMINISTRATION, are amended:

(a) *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 Scottsdale, hereinafter referred to as “this code.”

(b) *To the extent that Chapter 1 of the International Plumbing Code, 2021 Edition, conflicts with the city amendments to Chapter 1 of the International Building Code, 2021 Edition, the amendments to the International Building Code prevail.*

Sec. 31-82. IPC CHAPTER 3 GENERAL REGULATIONS - amendments.

Only the following portion of CHAPTER 3, GENERAL REGULATIONS, is amended:

(a) *Section 305.4.1, Sewer depth, is amended to read as follows:*

305.4.1 Sewer depth. *Building sewers* that connect to private sewage disposal systems shall meet the requirements of the Maricopa County Environmental Services Department. Building sewers shall be installed not less than 12 inches (305 mm) below finished grade.

Sec. 31-83. IPC CHAPTER 4 FIXTURES, FAUCETS AND FIXTURE FITTINGS - amendments.

Only the following portions of CHAPTER 4, FIXTURES, FAUCETS AND FIXTURE FITTINGS, are amended:

(a) *A new Section 410.1.1 is added as follows:*

Section 410.1.1 Water-bottle filling stations. *Water dispensers* shall be an integral part of or installed adjacent to all drinking fountains.

(b) *Section 421.4, Shower compartments, is amended by adding the following new section:*

Section 421.4.3 Trench drains. Any shower compartment built without a threshold shall have a trough drain installed at the threshold to stop water from leaving the shower compartment.

The trench drain shall connect to the drainage system at the shower tailpiece between the drain inlet and the trap.

(c) A new Section 424.1.1, is added as follows:

424.1.1 Waterless urinals. Waterless urinals shall have a water supply provided at all urinal rough-ins.

Sec. 31-84. IPC CHAPTER 6 WATER SUPPLY AND DISTRIBUTION - amendments.

Only the following portions of CHAPTER 6, WATER SUPPLY AND DISTRIBUTION, are amended:

(a) 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 be not less than 1 inch (25 mm) inside diameter. Replaced water service pipes shall be at least the same size as the pipe being replaced. In single-family dwellings where the total square footage under roof exceeds 12,000 square feet, the meter size shall be at least 1 1/2 inches (38 mm), and the supply pipe from the meter to the building shall be at least 2 inch (50mm) inside diameter.

(b) Table 604.4, Maximum Flow Rates and Consumption for Plumbing Fixtures and Fixture Fittings, is amended to read as follows:

**TABLE 604.4
MAXIMUM FLOW RATES AND CONSUMPTION FOR
PLUMBING FIXTURES AND FIXTURE FITTINGS**

PLUMBING FIXTURE OR FITTING FIXTURE	MAXIMUM FLOW RATE OR QUANTITY ^b
Lavatory, private	1.5 gpm at 60 psi
Lavatory, public (metering)	0.25 gallon per metering cycle
Lavatory, public (other than metering)	0.5 gpm at 60 psi
Shower head ^a	2.0 gpm at 80 psi
Residential kitchen faucet ^c	1.8 gpm at 60 psi
Sink faucet	2.2 gpm at 60 psi
Urinal	0.5 gallon per flushing cycle
Water closet	1.28 gallons per flushing cycle ^{d,e}

For SI: 1 gallon = 3.785 L, 1 gallon per minute = 3.785 L/m.

1 pound per square inch = 6.895 kPa.

a. The total flow rate from all shower outlets controlled by one valve shall not exceed 2.0 gpm. This includes hand-held sprays, body sprays, jets, waterfalls, and rain systems.

b. Consumption tolerances shall be determined from referenced standards.

- c. Kitchen faucets shall be permitted to temporarily increase the flow greater than 1.8 gpm but shall not exceed 2.2 gpm and must automatically revert to the established maximum flow rate of 1.8 gpm upon physical release of the activation mechanism or closure of the faucet valve.
- d. For dual flush, the full-flush volume shall not exceed 1.28 gallons.
- e. A 1.6 gallon per flushing cycle is permitted where a water closet is connected to a building's existing sanitary drainage piping.

Sec. 31-85. IPC Chapter 10 TRAPS, INTERCEPTORS AND SEPARATORS - amendments.

Only the following portions of CHAPTER 10, TRAPS, INTERCEPTORS AND SEPARATORS, are amended:

- (a) *New Sections 1003.0, Domestic wastewater, and 1003.0.1, Wastewater temperature, are added as follows:*

1003.0 Domestic wastewater. Domestic wastewater shall not be discharged to an interceptor.

1003.0.1 Wastewater temperature. Discharge of wastewater with temperatures in excess of 140 degrees F. or pH of less than 5.0 to any interceptor or separator is prohibited.

- (b) *Section 1003.1, Where required, is amended 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 building drainage system, *public sewer*, the private sewage disposal system or the sewage treatment plant or processes. Interceptors and separators shall be installed:

1. At new facilities.
2. At an existing facility not equipped with an interceptor or separator, for additions, alterations or remodeling.
3. At an existing facility not equipped with an interceptor or separator, which has caused a blockage or is contributing to fats, oil or grease build-up in the city sewer system.

When an existing facility is equipped with an interceptor or separator and additions, alterations or remodeling will increase volume to the interceptor or separator, the interceptor or separator shall be sized for the new volume.

1003.1.1 Use. An interceptor or separator shall be single-user only.

- (c) *Section 1003.3.1, Grease interceptors and automatic grease removal devices required, is amended to read as follows:*

1003.3.1 Grease interceptors and automatic grease removal devices required. A grease interceptor or automatic grease removal device shall be required to receive the drainage from fixtures and equipment with grease-laden waste located in food preparation areas, such as in restaurants, hotel kitchens, hospitals, school kitchens, bars, factory cafeterias and clubs. Fixtures and equipment shall include service/mop sinks, pot sinks, pre-rinse sinks; soup kettles or similar devices; wok stations; floor drains or sinks into which kettles are drained;

automatic hood wash units and dishwashers. Grease interceptors and automatic grease removal devices shall receive waste only from fixtures and equipment that allow fats, oils or grease to be discharged. Where lack of space or other constraints prevent the installation or replacement of a grease interceptor, one or more grease interceptors shall be permitted to be installed on or above the floor and upstream of an existing grease interceptor.

- (d) *Section 1003.3.5, Hydromechanical grease interceptors, fats, oils and greases disposal systems and automatic grease removal devices, is amended to read as follows:*

1003.3.5 Hydromechanical grease interceptors, fats, oils and greases disposal systems and automatic grease removal devices. Fats, oils, and greases disposal systems and automatic grease removal devices shall be sized in accordance with ASME A 112.14.3, ASME A112.14.4, ASME A112.14.6, CSA B481.3 or PDI G101. Hydro mechanical grease interceptors; fats, oils, and greases disposal systems and automatic grease removal devices shall be designed and tested in accordance with ASME A 112.14.3 Appendix A, ASME A112.14.4, ASME A 112.14.6, CSA B481.1, CSA B481.3, or PDI G102.

Hydromechanical grease interceptors; fats, oils and greases disposal systems and automatic grease removal devices shall be installed in accordance with the manufacturer's instructions. Where manufacturer's instructions are not provided, hydromechanical grease interceptors; fats, oils, and greases disposal systems and automatic grease removal devices shall be installed in compliance with ASME A 112.14.3, ASME A112.14.4, CSA B481.3 or PDI G101.

- (e) *Section 1003.3.5.1, Grease interceptor capacity, is retitled and amended to read as follows:*

1003.3.5.1 Hydromechanical Grease Interceptor (HGI or Grease Trap) Sizing. Hydromechanical Grease Interceptors (Grease Traps) are allowed only when there are four (4) or fewer than four (4) fixtures used for food preparation. The only size allowed shall be a 50gal/100lb HGI. Any facility installing a dishwasher shall install a Gravity Grease Interceptor. For the purpose of sizing a HGI, a fixture means the entire unit (e.g., a three (3) compartment sink is considered a unit). A flow restriction valve shall be installed upstream of the HGI and vented properly. If the HGI is placed below floor level the flow restriction valve must be installed in a manner which allows for inspection and maintenance.

- (f) *Table 1003.3.5.1, Capacity of Grease Interceptors, is deleted.*

- (g) *Section 1003.3.7, Gravity grease interceptors and gravity grease interceptors with fats, oils, and greases disposal systems, is amended to read as follows:*

1003.3.7 Gravity grease interceptors and gravity grease interceptors with fats, oils, and greases disposal systems. The required capacity of gravity grease interceptors and gravity grease interceptors with fats, oil and grease disposal systems shall be sized in accordance with the following formula:

Total dfu's x 3gpm (flow rate) x retention time.

Retention time minimum:

12 minutes for systems without garbage disposal.

17 minutes for systems with garbage disposal.

(h) A new Section 1005, Maintenance, is added to Chapter 10, Traps, Interceptors and Separators, as follows:

SECTION 1005 MAINTENANCE

1005.1 Cleaning and maintenance. Cleaning and maintenance shall be performed when the:

1. Total volume of captured fats, oil, grease and solids displaces more than 25 percent of the total volume of the interceptor or separator.
2. pH of a sample taken from the interceptor effluent is below 5.0.
3. Odor becomes a health issue or nuisance.
4. City determines a cleaning is necessary.

1005.1.1 Immediate action required. When atmospheric hydrogen sulfide levels are "Immediately Dangerous to Life and Health" (Occupational, Safety and Health Administration level of 100 ppm or above), immediate action shall be taken to return hydrogen sulfide to safe levels. If the hydrogen sulfide level cannot be immediately resolved, all use of the interceptor shall cease until the level becomes safe.

1005.2 Maintenance logs. All interceptors and separators shall be maintained by the facility in efficient operating condition at all times. Written logs of all cleaning, repair, calibration, and maintenance shall be maintained at the facility for a minimum of three (3) years. The city shall have access to such logs upon request.

1005.3 Maintenance inspection. All interceptors and separators are subject to city inspection.

1005.4 Skimming. Skimming, decanting or discharging removed waste or wastewater back into any interceptor and separator, or into any part of the wastewater collection system, is strictly prohibited.

1005.5 Complete cleaning frequency. All fats, oil, grease and sand interceptors with a capacity greater than 100gpm/200 pounds shall be completely cleaned at least once every 90 calendar days. Interceptors with a capacity of 100gpm/200 pounds or less shall be completely cleaned at least once every 30 calendar days. Interceptors shall be cleaned more frequently when necessary or required by the city. Complete cleaning shall be by a licensed contractor.

Exception: A person owning or operating an interceptor with a capacity no larger than 50gpm/100 pounds may petition the city water department, in writing, to modify the 30-day cleaning schedule. If approved, the maximum cleaning frequency shall not be greater than 90 days.

Documentation of the interceptor is required before granting any modification. The cleaning frequency modification shall be revoked if an inspection indicates that the interceptor has fallen out of compliance.

1005.6 Self-cleaning operator. Facilities may request approval as an interceptor self-cleaning operator. Self-cleaning shall not be done before approval. Approved self-cleaning operators shall:

1. Use approved on-site material disposal methods.
2. Place interceptor waste in a leak-proof, sealable container.
3. Maintain detailed logs with the following information:
 - a. Dates of cleaning, not less than every thirty (30) days;
 - b. Amount of fats, oil and grease (in gallons) removed and disposed of;
 - c. Waste disposal method used;
 - d. Certification that the interceptor was completely cleaned, and all parts were in operable condition; and
 - e. Name and signature of the person doing the cleaning.

1005.7 Self-cleaning operator revocation. Self-cleaning operator approval shall be revoked if an inspection indicates that the self-cleaning operator is not in compliance with this section. Upon revocation, the facility shall contract with a Maricopa County-licensed hauler to immediately clean out the interceptor and bring it into compliance with this chapter.

(i) *A new Section 1006, Enforcement, is added to Chapter 10, Traps, Interceptors and Separators, as follows:*

SECTION 1006 ENFORCEMENT

1006.1 Discharge permit. The city may require a discharge permit to supplement enforcement of this code and other city codes, policies and regulations.

1006.2 Minimization program. All facilities required to install an interceptor or separator shall use best management practices on a daily basis to minimize the discharge of fats, oil, grease and solids entering the interceptor or separator and the city sewer system.

1006.3 Training. All facilities required to have an interceptor or separator shall train employees in maintaining the interceptor and separator to minimize the discharge of fats, oil, grease and solids entering the interceptor or separator and the city sewer system.

1006.4 Special enforcement action.

1. The following facilities are subject to special enforcement action:
 - a. A facility where an interceptor or separator has more than one (1) violation in a 90 day period.
 - b. A facility that causes multiple problems in the city sewer system.
 - c. A facility that causes an obstruction of a city sewer because of an overburdened or poorly maintained interceptor.
2. The special enforcement action may result in:
 - a. Penalties under this code and other chapters of the Scottsdale Revised Code.
 - b. City or other corrective action and associated costs.
 - c. Discontinued sewer service.
 - d. Other remedies as provided by law.

1006.5 Owner responsible. If the city cleans up a sanitary sewer overflow caused by a blockage on private property, the property owner is responsible for the cost of the cleanup.

1006.6 Repairs or replacements. When repairs or replacements are necessary to an interceptor or separator, all repairs or replacements shall be completed within the time frame stated on the notice to comply. The city may authorize a time extension, not to exceed 30 days, for justifiable cause.

Sec. 31-86. IPC Chapter 11 STORM DRAINAGE - amendments.

Only the following portions of CHAPTER 11, STORM DRAINAGE, are amended:

(a) *A new Section 1106.5.1, Parapet wall scupper location, is added as follows:*

1106.5.1 Parapet wall scupper location. Roof drainage scuppers and overflow scuppers shall not be located horizontally within three feet of any electric meter, electric panel or gas meter.

(b) *Section 1109, Combined Sanitary and Storm Public Sewer, is deleted.*

Sec. 31-87. IPC Chapter 12 SPECIAL PIPING AND STORAGE SYSTEMS - amendments.

Only the following portion of CHAPTER 12, SPECIAL PIPING AND STORAGE SYSTEMS, is amended:

(a) *A new Section 1201.1.1, Special inspections, is added after Section 1201.1 as follows:*

1201.1.1 Special inspections. Special inspections are required for medical gas and oxygen system installations.

Sec. 31-88. Appendices to IPC.

Only the following appendices of the IPC are adopted:

APPENDIX B – RATES OF RAINFALL FOR VARIOUS CITIES

APPENDIX D – DEGREE DAY AND DESIGN TEMPERATURES

APPENDIX E – SIZING OF WATER PIPING SYSTEM

[Sec. 31-89: Reserved.]