

# **Licensing and Regulatory Affairs**

## **Bureau of Construction Codes**

### **PART 7. PLUMBING CODE**

**Effective: March 12, 2024**

*Draft*

## DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

## DIRECTOR'S OFFICE

## CONSTRUCTION CODE

Filed with the secretary of state on

These rules become effective 120 days after filing with the secretary of state.

(By authority conferred on the director of the department of licensing and regulatory affairs by section 4 of the Stille-DeRossett-Hale single state construction code act, 1972 PA 230, MCL 125.1504, and Executive Reorganization Order Nos. 2003-1, 2008-4, and 2011-4, MCL 445.2011, 445.2025, and 445.2030)

R 408.30701, R 408.30711, R 408.30716, R 408.30727, R 408.30729, R 408.30755, R 408.30758, and R 408.30762 of the Michigan Administrative Code are amended, R 408.30725d, R 408.30725e, R 408.30725f, R 408.30725g, R 408.30725h, R 408.30726a, R 408.30727a, R 408.30727b, R 408.30727c, R 408.30729a, R 408.30729b, R 408.30732, R 408.30736, R 408.30753b, R 408.30755a, R 408.30758a, and R 408.30758b are added, as follows:

## PART 7. PLUMBING CODE

## AMENDMENTS AND ADDITIONS TO BASIC PLUMBING CODE

R 408.30701 Applicable code.

Rule 701. Rules governing the installation, replacement, alteration, relocation, and use of plumbing systems or plumbing materials are those contained in the international plumbing code, 2021 second printing edition, including appendices B, C, D, and E, except for sections 103.1, 103.2, 103.3, 104.2, 104.5 to 104.7, 104.8, 104.8.1, 106.3, 106.3.1, 106.3.2, 106.5.5, 108.2.5, 108.2.5.1, 108.2.5.2, 109.2 to 109.5, 113.1 to 113.4, 114.1 to 114.4, 115.3, 404.2, 404.3, 602.3 to 602.3.5.1, 608.18 to 608.18.8, 712.3.3.1, 712.3.3.2, 715.1 to 715.4, 802.4.3.1, 1106.3, 1106.6, 1301 to 1304.4.2, 1401 to 1403.2.1 and tables 608.18.1, 1106.3, and 1106.6. With the exceptions noted, the code is adopted in these rules by reference. All references to the International Building Code, International Residential Code, International Energy Conservation Code, National Electrical Code, International Mechanical Code, and International Plumbing Code mean the Michigan Building Code, Michigan Residential Code, Michigan Energy Code, Michigan Electrical Code, Michigan Mechanical Code, and Michigan Plumbing Code, respectively. The code is available for inspection, and purchase at the Lansing office of the Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes, 611 West Ottawa Street, First Floor Ottawa Building, Lansing, Michigan 48933. The code may be purchased from the International Code Council, through the bureau's

website at [www.michigan.gov/bcc](http://www.michigan.gov/bcc), at a cost as of the time of adoption of these rules of \$87.50 for each code book.

## AMENDMENTS AND ADDITIONS TO BASIC PLUMBING CODE

R 408.30711 Title and scope.

Rule 711. Sections 101.1, 101.2, and 101.3 of the code are amended to read as follows:

101.1. Title. This part shall be known as the Michigan plumbing code and is to be referred to as “the plumbing code” or “the code.” This part shall control all matters concerning the installation, replacement, alteration, relocation, and use of plumbing systems or plumbing materials as defined in this code and shall apply to existing or proposed buildings and structures in this state.

101.2. Scope. The design and installation of plumbing systems, including sanitary and storm drainage, sanitary facilities, medical gas systems, water supplies, water service, and storm water and sewage disposal in and exiting buildings, shall comply with the requirements of the code. The design and installation of gas piping, chilled water piping in connection with refrigeration process and comfort cooling, and hot water piping in connection with building heating systems shall conform to the Michigan mechanical code. The design and installation of all fire sprinkler systems and standpipe systems shall conform to the Michigan building code. Water and drainage connections to such installations shall be made in accordance with the requirements of the code.

Exception: Detached 1-and 2-family dwellings and multiple single-family dwellings, such as townhouses, not more than 3 stories high with separate means of egress and their accessory structures shall comply with the Michigan residential code.

101.3. Intent. The purpose of this code and the Stille-DeRossett-Hale single state construction code act, 1972 PA 230, MCL 125.1501 to 125.1531 is to establish minimum standards to provide a reasonable level of safety, health, property protection, and public welfare by regulating and controlling the design, construction, installation, quality of materials, location, and operation and maintenance or use of plumbing equipment and systems. The Stille-DeRossett-Hale single state construction code act, 1972 PA 230, MCL 125.1501 to 125.1531, takes precedence over all provisions of this code.

R 408.30715 Permits.

Rule 715. Sections 106.5.3 and 106.5.4 of the code are amended to read as follows:

106.5.3. Expiration. Each permit issued by the code official under the provisions of the code shall expire by limitation and become null and void if the work authorized by this permit is not commenced within 180 days from the date of such permit, or if the work authorized by this permit is suspended or abandoned at any time after the work is commenced for a period of 180 days. Before this work may be recommenced, the permit shall be reinstated if the code has not changed. If the code has changed and the work was not started, a new permit shall be first obtained for such work, provided no changes have been made or will be made in the original construction document for this work and provided further that the suspension or abandonment has not exceeded 1 year.

106.5.4. Application and extensions. The authority having jurisdiction may grant a 180-day extension of the original permit time period of 180 days, upon presentation by the

permittee of a satisfactory reason for failure to start or complete the work or activity authorized by the permit.

R 408.30716 Fees.

Rule 716. Section 109.1 of the code is amended to read as follows:

109.1. Fees. The fees prescribed by the act shall be paid to the enforcing agency of the jurisdiction before a permit to begin work for new construction, alteration, removal, demolition, or other building operation may be issued. In addition, an amendment to a permit necessitating an additional fee shall not be approved until the additional fee is paid. The authority having jurisdiction may withhold issuance of any newly requested permits to an individual who has outstanding permit fees owed to that authority having jurisdiction.

R 408.30717 Right of entry.

Rule 717. Section 104.4 of the code is amended to read as follows:

104.4 Right of entry. If a building or premises is occupied, the code official shall present his or her credentials to the occupant and request entry. If a building or premises is unoccupied, the code official shall first make a reasonable effort to locate either the owner, the owner's authorized agent or other person having care or control of the building or premises and request entry. If entry is refused, the code official has recourse to every remedy provided by law to secure entry.

When a code official has first obtained a proper inspection warrant or other remedy provided by law to secure entry, the owner, owner's authorized agent or occupant or person having charge, care or control of the building or premises shall not fail or neglect, after a proper request is made as provided in this rule, to permit the code official prompt entry into the building or premises to inspect or examine the building or premises pursuant to this code.

R 408.30718 Violation penalties.

Rule 718. Section 108.4 of the code is amended to read as follows:

108.4. Violation penalties. A person who violates a provision of the code, who fails to conform with any of the requirements thereof, or who erects, installs, alters, or repairs plumbing work in violation of the approved construction documents or directive of the enforcing agency, or a permit or certificate issued under the provisions of the code shall be subject to review and may result in licensing action pursuant to the skilled trades regulation act, 2016 PA 407, MCL 339.5101 to 339.5517.

R 408.30721 Required tests.

Rule 721. Sections 309.3 and 312.1 of the code are amended and section 312.3 is added to read as follows:

309.3. Flood hazard areas subject to high-velocity wave action. Structures located in flood hazard areas subject to high-velocity wave action shall meet the requirements of

section 309.2. The plumbing systems, pipes, and fixtures shall not be mounted on or penetrate through walls intended to break away under flood loads.

312.1. Required tests. The permit holder shall make the applicable tests prescribed in sections 312.2 to 312.10.2 to determine compliance with the code. The permit holder shall give reasonable advance notice to the code official when the plumbing work is ready for testing. The equipment, material, power, and labor necessary for the inspection and test shall be furnished by the permit holder and the permit holder shall be responsible for determining that the work will withstand the test pressure prescribed in this rule. All plumbing system piping shall be tested with either water or, for piping systems other than plastic, by air. After the plumbing fixtures have been set and their traps filled with water, the entire drainage system shall be submitted to final tests. The code official shall require the removal of any cleanouts if necessary to ascertain if the pressure has reached all parts of the system.

Exception: Drainage and vent low pressure air tests for plastic piping systems shall be acceptable as prescribed in section 312.3 of the code.

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 before the beginning of the test period.

R 408.30722 Separate facilities.

Rule 722. Section 403.2 of the code is amended to read as follows:

403.2. Separate facilities. Where plumbing fixtures are required, separate facilities shall be provided for each sex.

Exceptions:

1. Separate facilities shall not be required for private facilities.
2. Separate facilities shall not be required in structures or tenant spaces with a total occupant load, including both employees and customers, of 15 or fewer.
3. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 50 or fewer.

R 408.30723 Distance of trap from vent.

Rule 723. Section 909.1 of the code is amended to read as follows:

909.1 Distance of trap from vent. Each fixture trap shall have a protecting vent located so that the slope and the developed length in the fixture drain from the trap weir to the vent fitting are within the requirements in table 909.1.

R 408.30725 Industrial or commercial wastes.

Rule 725. Section 302.2 of the code is amended to read as follows:

302.2. Industrial or commercial wastes. Industrial or commercial wastes shall not be introduced into the public sewer or private disposal system without receiving prior approval in the following manner:

(1) Industrial or commercial wastes discharged to a public sewer system are subject to review, approval, and regulation by the owner of the sewage treatment system under the authority of the federal water pollution control act of 1972, as amended, 33 U.S.C.1251 et seq., and sections 3101 to 3119 of Act No. 451 of the Public Acts of 1994, as amended, being 324.3101 to 324.3119 of the Michigan Compiled Laws.

(2) Industrial or commercial wastes discharged to an on-site disposal system are subject to review, approval, and regulation by the Michigan department of environmental quality under the authority of sections 3101 to 3119 of Act No. 451 of the Public Acts of 1994, as amended, being 324.3101 to 324.3119 of the Michigan Compiled Laws.

(3) Industrial or commercial wastes discharged to an on-site holding tank are subject to review, approval, and regulation under sections 3101 to 3119, 11101 to 11152, and 12101 to 12118 of Act No. 451 of the Public Acts of 1994, as amended, being 324.3101 to 324.3119, 324.11101 to 324.11152 and 324.12101 to 324.12118 of the Michigan Compiled Laws, and the federal resource conservation and recovery act of 1976, as amended, 42 U.S.C.6901 et seq.

#### R 408.30725a Radioactive material.

Rule 725a. Section 302.2.1 is added to the code to read as follows:

302.2.1. Radioactive material. Possession of radioactive material is regulated by state or federal license. The disposal of radioactive material shall not create a hazard to operational or maintenance personnel of the institution or to the public. Radioactive waste disposal is controlled by the Michigan department of environmental quality by conditions for disposal in a radioactive material license issued under the authority of part 135 of Act No.368 of the Public Acts of 1978, as amended, being 333.13501 et seq. of the Michigan Compiled Laws, and the ionizing radiation rules, being R 325.5001 et seq. of the Michigan Administrative Code, or is controlled by the United States nuclear regulatory commission by conditions for disposal in a license issued under the authority of the atomic energy act of 1954, 42 U.S.C.2011 et seq.

#### R 408.30725c Venting of fixture drains.

Rule 725c. Section 909.2 of the code is amended to read as follows:

909.2. Venting of fixture drains. The vent for a fixture drain, except where serving a fixture with integral traps, such as water closets, shall connect above the weir of the fixture trap being vented. The total slope shall not exceed the diameter of the fixture drain.

#### R 408.30725d Type of fixtures.

Rule 725d. Section 915.1 is added to the code to read as follows:

915.1. Type of fixtures. A combination waste and vent system shall not serve fixtures other than floor drains, sinks, lavatories and drinking fountains. Combination waste and vent systems shall not receive the discharge from a food waste disposer or clinical sink.

R 408.30725e Fixture traps.

Rule 725e. Section 1002.1 is added to the code to read as follows:

1002.1. Fixtures traps. Each plumbing fixture shall be separately trapped by a liquid-seal trap, except as otherwise allowed by this code. The vertical distance from the fixture outlet to the trap weir shall not exceed 24 inches, 609.6 mm, and the horizontal distance shall not exceed 30 inches, 762 mm, measured from the centerline of the fixture outlet to the centerline of the inlet of the trap. The height of a clothes washer standpipe above a trap shall conform to section 802.4.3. A fixture shall not be double trapped.

Exceptions:

1. This section shall not apply to fixtures with integral traps.
2. A combination plumbing fixture is allowed to be installed on 1 trap, provided that 1 compartment is not more than 6 inches, 152 mm, deeper than the other compartment and the waste outlets are not more than 30 inches, 762 mm, apart.
3. A grease interceptor intended to serve as a fixture trap in accordance with the manufacturer's installation instructions shall be allowed to serve as the trap for a single fixture or a combination sink of not more than 3 compartments where the vertical distance from the fixture outlet to the inlet of the interceptor does not exceed 30 inches, 762 mm, and the developed length of the waste pipe from the most upstream fixture outlet to the inlet of the interceptor does not exceed 60 inches, 1524 mm.
4. Floor drains in multilevel parking structures that discharge to a building storm sewer shall not be required to be individually trapped. Where floor drains in multilevel parking structures are required to discharge to a combined building sewer system, the floor drains shall not be required to be individually trapped provided that they are connected to a main trap in accordance with section 1103.1.

R 408.30725f Inspection and testing of backflow prevention assemblies.

Rule 725f. Section 312.10 is added to the code to read as follows:

312.10. Inspection and testing of backflow prevention assemblies. Inspection and testing shall comply with section 312.10.1 and 312.10.2

R 408.30725g Inspections.

Rule 725g. Section 312.10.1 is added to the code to read as follows:

312.10.1. Inspections. Inspections shall be made of all backflow prevention assemblies and air gaps after installation or relocation to determine whether the assemblies are operable and air gaps exist.

R 408.30725h Testing.

Rule 725h. Section 312.10.2 is added to the code to read as follows:

312.10.2. 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 at the

time of relocation. Test gauges shall comply with ASSE 1064. The testing procedure shall be performed in accordance with 1 of the following standards:

- (a) ASSE 5013.
- (b) ASSE 5015.
- (c) ASSE 5020.
- (d) ASSE 5047.
- (e) ASSE 5048.
- (f) ASSE 5052.
- (g) ASSE 5056.
- (h) CSA B64.10.
- (i) CSA B64.10.1.

R 408.30726 Building sewer.

Rule 726. Table 702.3 and section 703.1 of the code are amended to read as follows:

Table 702.3

**BUILDING SEWER PIPE**

| MATERIAL  | STANDARD  |
|---|---|
| Acrylonitrile butadiene styrene (ABS) plastic pipe in IPS diameters, including Schedule 40, DR 22 (PS 200) and DR 24 (PS 140); with a solid, cellular core or composite wall  | ASTM D2661; ASTM F628; ASTM F1488; CSA B181.1             |
| Acrylonitrile butadiene styrene (ABS) plastic pipe in sewer and drain diameters, including SDR 42 (PS 20), PS 35, SDR 35 (PS 45), PS 50, PS 100, PS 140, SDR 23.5 (PS 150) and PS 200; with a solid, cellular core or composite wall. | ASTM F1488; ASTM D2751                                    |
| Cast-iron pipe  | ASTM A74; ASTM A888; CISPI 301                            |
| Concrete pipe   | ASTM C14; ASTM C76; CSA A257.1M; CSA A257.2M              |
| Copper or copper-alloy tubing (Type K or L)   | ASTM B75; ASTM B88; ASTM B251                             |
| Polyethylene (PE) plastic pipe (SDR-PR)   | ASTM F714   |
| Polypropylene (PP) plastic pipe   | ASTM F2736; ASTM F2764; CSA B182.13                       |
| Polyvinyl chloride (PVC) plastic pipe in IPS diameters, including Schedule 40, DR 22 (PS 200) and DR 24 (PS 140); with a solid, cellular core or composite wall   | ASTM D2665; ASTM F891; ASTM F1488                         |
| Polyvinyl chloride (PVC) plastic pipe in sewer and drain diameters, including PS 25, SDR 41 (PS 28), PS 35, SDR 35 (PS 46), PS 50, PS 100, SDR 26 (PS 115), PS 140 and PS 200; with a solid, cellular core or composite wall.         | ASTM F891; ASTM F1488; ASTM D3034; CSA B182.2; CSA B182.4 |



|  |                        |
|--|------------------------|
| Polyvinyl chloride (PVC) plastic pipe with a 3.25-inch O.D. and a solid, cellular core or composite wall | ASTM D2949; ASTM F1488 |
| Polyvinylidene fluoride (PVDF) plastic pipe  | ASTM F1673; CSA B181.3 |
| Stainless steel drainage systems, Types 304 and 316L   | ASME A112.3.1          |
| Vitrified clay pipe  | ASTM C4; ASTM C700     |

For SI: 1 inch = 25.4 mm.

703.2 Drainage pipe in filled ground. Where a building sewer or building drain is installed on filled or unstable ground, the drainage pipe shall conform to one of the standards for ABS plastic pipe, cast-iron pipe, copper or copper-alloy tubing, or PVC plastic pipe indicated in Table 702.3.

R 408.30726a Pipe fittings.

Rule 726a. Section 702.4 is added to the code to read as follows:

Table 702.4  
PIPE FITTINGS

| MATERIAL  | STANDARD   |
|---|--|
| Acrylonitrile butadiene styrene (ABS) plastic pipe in IPS diameters             | ASME A112.4.4; ASTM D2661; ASTM F628; CSA B181.1                             |
| Acrylonitrile butadiene styrene (ABS) plastic pipe in sewer and drain diameters | ASTM D2751   |
| Cast iron   | ASME B16.4; ASME B16.12; ASTM A74; ASTM A888; CISPI 301                      |
| Copper or Copper alloy  | ASME B16.15; ASME B16.18; ASME B16.22; ASME B16.23; ASME B16.26; ASME B16.29 |
| Galvanized steel pipe   | ASTM A53   |
| Glass   | ASTM C1053   |
| Gray iron and ductile iron  | AWWA C110/A21.10   |
| Polyethylene  | ASTM D2683   |
| Polyolefin  | ASTM F1412; CSA B181.3   |
| Polyvinyl chloride (PVC) plastic in IPS diameters                               | ASME A112.4.4; ASTM D2665; ASTM F1866  |
| Polyvinyl chloride (PVC) plastic pipe in sewer and drain diameters              | ASTM D3034   |
| Polyvinyl chloride (PVC) plastic pipe with a 3.25-inch O.D.                     | ASTM D2949   |
| Polyvinylidene fluoride (PVDF) plastic pipe                                     | ASTM F1673; CSA B181.3   |
| Stainless steel drainage system, Types 304 and 316L                             | ASME A112.3.1  |

|                |                                      |
|----------------|--------------------------------------|
| Steel          | ASME B16.9; ASME B16.11; ASME B16.28 |
| Vitrified clay | ASTM C700                            |

R 408.30727 Water distribution pipe.

Rule 727. Table 605.4 of the code is amended to read as follows:

Table 605.4  
WATER DISTRIBUTION PIPE

| MATERIAL  | STANDARD                                     |
|---|--|
| Chlorinated polyvinyl chloride (CPVC) plastic pipe and tubing                         | ASTM D2846; ASTM F441; ASTM F442; CSA B137.6 |
| Chlorinated polyvinyl chloride/aluminum/chlorinated polyvinyl chloride (CPVC/AL/CPVC) | ASTM F2855                                   |
| Copper or copper-alloy pipe   | ASTM B42; ASTM B302; ASTM B43                |
| Copper or copper-alloy tubing (Type K, WK, L, WL, M or WM)                            | ASTM B75; ASTM B88; ASTM B251; ASTM B447     |
| Cross-linked polyethylene (PEX) plastic tubing  | ASTM F876; CSA B137.5                        |
| Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe        | ASTM F1281; ASTM F2262; CSA B137.10          |
| Cross-linked polyethylene/aluminum/high-density polyethylene (PEX-AL-HDPE)            | ASTM F1986                                   |
| Ductile iron pipe   | AWWA C151/A21.51; AWWA C115/A21.15           |
| Galvanized steel pipe   | ASTM A53                                     |
| Polyethylene/aluminum/polyethylene (PE-AL-PE) composite pipe                          | ASTM F1282                                   |
| Polyethylene of raised temperature (PE-RT) plastic tubing                             | ASTM F2769; CSA B137.158                     |
| Polypropylene (PP) plastic pipe or tubing   | ASTM F2389; CSA B137.11                      |
| Stainless steel pipe (Type 304/304L)  | ASTM A312; ASTM A778                         |
| Stainless steel pipe (Type 316/316L)  | ASTM A312; ASTM A778                         |

(REFERENCE R 408.30732, SECTION 605.2.1)

R 408.30727a Location of full-open valve.

Rule 727a. Section 606.1 is added to the code to read as follows:

606.1. Location of full-open valve. Full-open valves shall be installed in the following locations:

1. On the building water service pipe from the public water supply near the curb.
2. On the water distribution supply pipe at the entrance into the structure.

2.1. In multiple tenant buildings, where a common water supply piping system is installed to supply spaces other than 1 and 2 family dwellings, a main shutoff valve shall be provided for each tenant or space.

3. On the discharge side of every water meter.

4. On the base of every water riser pipe in occupancies other than multiple-family residential occupancies that are 2 stories or less in height and in 1 and 2 family residential occupancies.

5. On the top of every water down-feed pipe in occupancies other than 1 and 2 family residential occupancies.

6. On the entrance to every water supply pipe to a dwelling unit, except where supplying a single fixture equipped with individual stops.

7. On the water supply pipe to a gravity or pressurized water tank.

8. On the water supply pipe to every water heater.

R 408.30727b Labeling of water distribution pipes in bundles.

Rule 727b. Section 606.7 is added to the code to read as follows:

606.7. Labeling of water distribution pipes in bundles. Where water distribution piping is bundled at installation, each pipe in the bundle shall be identified using stenciling, commercially available pipe labels, or approved color-coded piping materials. The identification shall indicate the pipe contents and the direction of flow in the pipe. The interval of the identification markings on the pipe shall not exceed 25 feet, 7620mm. There shall be at least 1 identification label on each pipe in each room, space, or story.

R 408.30727c Tempered water temperature control.

Rule 727c. Section 607.1.2 is added to the code to read as follows:

607.1.2. Tempered water temperature control. Tempered water shall be controlled by 1 of the following:

1. A limiting device conforming to ASSE 1070/ASME A112.1070/CSA B125.70 and set to not greater than 110 degrees Fahrenheit or 43 degrees Celsius.

2. A thermostatic mixing valve conforming to ASSE 1017.

3. A water heater conforming to ASSE 1082.

4. A water heater conforming to ASSE 1084.

5. Emergency eye wash tepid water limits shall not be less than 60 degrees Fahrenheit or 15.6 degrees Celsius and not greater than 100 degrees Fahrenheit or 37.8 degrees Celsius and conform to ASSE 1071.

R 408.30728 Sewer depth.

Rule 728. Section 305.4.1 of the code is amended to read as follows:

305.4.1. Sewer depth. A building sewer that connects to a private disposal system shall be a minimum of 8 inches (203 mm) to the top of the pipe below finished grade at the point of septic tank connection. Building sewers shall be installed a minimum of 42 inches (1067 mm) below grade.

Exception: When permitted by the code official.

R 408.30729 Water service pipe.

Rule 729. Table 605.3 and section 609.3 of the code are amended to read as follows:

Table 605.3

WATER SERVICE PIPE

| MATERIAL  | STANDARD                                       |
|---|--|
| Acrylonitrile butadiene styrene (ABS) plastic pipe                                    | ASTM D1527; ASTM D2282                         |
| Chlorinated polyvinyl chloride (CPVC) plastic pipe                                    | ASTM D2846; ASTM F441; ASTM F442; CSA B137.6   |
| Chlorinated polyvinyl chloride/aluminum/chlorinated polyvinyl chloride (CPVC/AL/CPVC) | ASTM F2855                                     |
| Copper or copper-alloy pipe   | ASTM B42; ASTM B302                            |
| Copper or copper-alloy tubing (Type K, WK, L, WL, M or WM)                            | ASTM B75; ASTM B88; ASTM B251; ASTM B447       |
| Cross-linked polyethylene (PEX) plastic pipe and tubing                               | ASTM F876; AWWA C904; CSA B137.5               |
| Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AS-PEX) pipe        | ASTM F1281; ASTM F2262; B137.10                |
| Cross-linked polyethylene/aluminum/high-density polyethylene (PEX-AL-HDPE)            | ASTM F1986                                     |
| Ductile iron water pipe   | AWWA C151/A21.51; AWWA C115/A21.15             |
| Galvanized steel pipe   | ASTM A53                                       |
| Polyethylene (PE) plastic pipe  | ASTM D2239; ASTM D3035; AWWA C901; CSA B137.11 |
| Polyethylene (PE) plastic tubing  | ASTM D2737; AWWA C901; CSA B137.1              |
| Polyethylene/aluminum/polyethylene (PE-AL-PE) pipe                                    | ASTM F1282; CSA B 137.9                        |
| Polyethylene of raised temperature (PE-RT) plastic tubing                             | ASTM F2769; CSA B137.18                        |
| Polypropylene (PP) plastic pipe or tubing   | ASTM F2389; CSA B137.11                        |
| Polyvinyl chloride (PVC) plastic pipe   | ASTM D1785; ASTM D2241; ASTM D2672; CSA B137.3 |
| Stainless steel pipe (Type 304/304L)  | ASTM A312; ASTM A778                           |
| Stainless steel pipe (Type 316/316L)  | ASTM A312; ASTM A778                           |
| Chlorinated polyvinyl chloride (CPVC) plastic pipe and tubing                         | ASTM D2846; ASTM F441; ASTM F442; CSA B137.6   |
| Chlorinated polyvinyl chloride/aluminum/chlorinated polyvinyl                         | ASTM F2855                                     |

|  |  |
|--|--|
| chloride (CPVC/AL/CPVC)  |  |
| Copper or copper-alloy pipe  | ASTM B-42; ASTM B302; ASTM B43           |
| Copper or copper-alloy tubing (Type K, WK, L, WL, M or WM)                     | ASTM B75; ASTM B88; ASTM B251; ASTM B447 |
| Cross-linked polyethylene (PEX) plastic tubing                                 | ASTM F876; CSA B137.5                    |
| Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe | ASTM F1281; ASTM F2262; CSA B137.10      |
| Cross-linked polyethylene/aluminum/high-density polyethylene (PEX-AL-HDPE)     | ASTM F1986                               |
| Ductile iron pipe  | AWWA C151/A21.51; AWWA C115/A21.15       |
| Polyethylene/aluminum/polyethylene (PE-AL-PE) composite pipe                   | ASTM F1282                               |
| Polyethylene of raised temperature (PE-RT) plastic tubing                      | ASTM F2769; CSA B137.158                 |
| Polypropylene (PP) plastic pipe or tubing                                      | ASTM F2389; CSA B137.11                  |
| Stainless steel pipe (Type 304/304L)   | ASTM A312; ASTM A778                     |
| Stainless steel pipe (Type 316/316L)   | ASTM A312; ASTM A778                     |

(REFERENCE R 408.30732, SECTION 605.2.1)

609.3 Hot water. Hot water shall be provided to supply all of the hospital fixtures, kitchen, and laundry requirements. Special fixtures and equipment shall have hot water supplied at a temperature specified by the manufacturer. The hot water system shall be installed in accordance with section 607.

R 408.30729a. Pipe fitting.

Rule 729a. Table 605.5 is added to the code to read as follows:

Table 605.5  
PIPE FITTINGS

| MATERIAL   | STANDARD   |
|--|--|
| Acrylonitrile butadiene styrene (ABS) plastic                              | ASTM D2468   |
| Cast iron  | ASME B16.4   |
| Chlorinated polyvinyl chloride (CPVC) Plastic                              | ASSE 1061; ASTM D2846; ASTM F437; ASTM F438; ASTM F439; CSA B137.6   |
| Copper or copper alloy   | ASME B16.15; ASME B16.18; ASME B16.22; ASME B16.26; ASME B16.51; ASSE 1061; ASTM F1476; ASTM F1548; ASTM F3226 |
| Cross-linked polyethylene/aluminum/high-density polyethylene (PEX-AL-HDPE) | ASTM F1986   |
| Fittings for cross-linked polyethylene (PEX) plastic tubing                | ASSE 1061; ASTM F877; ASTM F1807; ASTM F 1960; ASTM F2080; ASTM F2098, ASTM F2159; ASTM 2434;                  |

|   |  |
|---|--|
|   | ASTM F2735; CSA B137.5   |
| Fittings for polyethylene of raised temperature (PE-RT) plastic tubing  | ASSE 1061; ASTM D3261; ASTM F1807; ASTM 2098; ASTM F2159; ASTM 2735; ASTM F2769; CSA B137.18 |
| Galvanized steel pipe   | ASTM A53   |
| Gray iron and ductile iron  | ASTM F1476; ASTM F1548; AWWA C110/A21.10; AWWA C153/A21.53                                   |
| Insert fittings for polyethylene/aluminum/polyethylene (PE-AL-PE) and cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX)               | ASTM F1281; ASTM F1282; ASTM F1974; CSA B137.9; CSA B137.10                                  |
| Malleable iron  | ASME B16.3   |
| Metal (brass) insert fittings for polyethylene/aluminum/polyethylene (PE-AL-PE) and cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) | ASTM F1974   |
| Polyethylene (PE) plastic pipe  | ASTM D2609; ASTM D2683; ASTM D3261; ASTM F1055; CSA B137.1                                   |
| Polypropylene (PP) plastic pipe or tubing   | ASTM F2389; CSA B137.11  |
| Polyvinyl chloride (PVC) plastic  | ASTM D2464; ASTM D2466; ASTM D2467; CSA B137.2; CSA B137.3                                   |
| Stainless steel (Type 304/304L)   | ASTM A312; ASTM A778; ASTM F1476; ASTM F1548; ASTM F3226                                     |
| Stainless steel (Type 316/316L)   | ASTM A312; ASTM A778; ASTM F1476; ASTM F1548; ASTM F3226                                     |
| Steel   | ASME B16.9, ASME B16.11; ASME B16.28; ASTM F1476; ASTM F1548                                 |

(REFERENCE R 408.30732, SECTION 605.2.1)

R 408.30729b Manufactured pipe nipples.

Rule 729b. Table 605.8 is added to the code to read as follows:

Table 605.8

MANUFACTURED PIPE NIPPLES

| MATERIAL                                  | STANDARD  |
|---|-----------|
| Copper, copper alloy, and chromium-plated | ASTM B687 |
| Galvanized steel pipe                     | ASTM A53  |

|       |           |
|-------|-----------|
| Steel | ASTM A773 |
|-------|-----------|

(REFERENCE R 408.30732, SECTION 605.2.1)

R 408.30730 Sewer required.

Rule 730. Section 701.2 of the code is amended and section 701.9 is added to read as follows:

701.2. Sewer required. Every building in which plumbing fixtures are installed and all premises having drainage piping shall be connected to a public sewer, where available, or an approved private sewage disposal system.

701.9. Connections. Direct connection of a steam exhaust, blowoff, or drip pipe shall not be made with the building drainage system. Waste water where discharged into the building drainage system shall be at a temperature not greater than 140°F (60°C). Where higher temperatures exist, approved cooling methods shall be provided.

R 408.30731. Laundries.

Rule 731. Sections 1002.6 and 1003.6 of the code are amended to read as follows:

1002.6. Building traps. Building (house) traps shall be prohibited, except where local conditions necessitate these traps. Building traps shall be provided with a cleanout and a relief vent or fresh air intake on the inlet side of the trap. The size of the relief vent or fresh air intake shall not be less than ½ the diameter of the drain to which the relief vent or air intake connects. The relief vent or fresh air intake shall be carried above grade and shall be terminated in a screened outlet located outside the building.

1003.6. Laundries. Commercial laundries shall be equipped with an interceptor with a wire basket or similar device, removable for cleaning, that prevents passage into the drainage system of solids 0.5 inch (12.7 mm) or larger in size, string, rags, buttons, or other materials detrimental to the public sewage system.

R 408.30732 Lead content of drinking water pipe and fittings.

Rule 732. Section 605.2.1 is added to the code to read as follows:

605.2.1. Lead content of drinking water pipe and fittings.

Pipe, pipe fittings, joints, valves, faucets, and fixture fittings utilized to supply water for drinking or cooking purposes shall comply with NSF 372 and shall have a weighted average lead content of 0.25% or less.

R 408.30735 Hot water supply required.

Rule 735. Section 607.1 of the code is amended to read as follows:

607.1. Where required. (1) In residential occupancies, hot water shall be supplied to all plumbing fixtures and equipment utilized for bathing, washing, culinary purposes, cleansing, laundry, or building maintenance. In nonresidential occupancies, hot water shall be supplied for culinary purposes, cleansing, laundry, or building maintenance purposes. In nonresidential occupancies, hot water or tempered water shall be supplied for bathing and washing purposes. Tempered water shall be supplied through a water

temperature limiting device that conforms to ASSE 1070, and shall limit the tempered water to a maximum of 110 degrees Fahrenheit (43 degrees Celsius). This provision does not supersede the requirement for protective shower valves in accordance with section 424.3 of the code.

(2) Tempered water shall be supplied to bathing and hand washing facilities in the occupancies identified in the following by individual water temperature limiting devices to individual fixtures:

- (a) Elementary schools.
- (b) Child care centers.
- (c) Day care centers.
- (d) Nurseries.
- (e) Adult group homes.
- (f) Adult congregate homes.
- (g) Children's camps.
- (h) At accessible plumbing fixtures.

R 408.30736 Water supply.

Rule 736. Section 411.3 is added to the code to read as follows:

411.3. Water supply. Where hot and cold water is supplied to an emergency shower or eyewash station, the temperature of the water supply shall only be controlled by a temperature-actuated mixing valve complying with ASSE 1071. Where water is supplied directly to an emergency shower or eyewash station from a water heater, the water heater shall comply with ASSE 1085.

R 408.30741c Connections to automatic fire sprinkler systems and standpipe systems.

Rule 741c. Section 608.17.4 of the code is amended to read as follows:

608.17.4. Connections to automatic fire sprinkler systems and standpipe systems. The potable water supply to automatic fire sprinkler and standpipe systems shall be protected against backflow by a double check backflow prevention assembly, a double check fire protection backflow prevention assembly, or a reduced pressure principle fire protection backflow prevention assembly.

Exception: Isolation of the water distribution system is not required for deluge, preaction, or dry pipe systems.

R 408.30749 Special equipment; water supply protection.

Rule 749. Section 608.3.1 of the code is amended to read as follows:

608.3.1. Special equipment; water supply protection. The water supply for hospital fixtures shall be protected against backflow with a reduced pressure principle backflow prevention assembly, an atmospheric or spill-resistant vacuum breaker assembly, or an air gap. Vacuum breakers for bedpan washer hoses, autopsy tables, and hose connections in health care or laboratory areas shall not be located less than 6 feet (1829 mm) above the floor.



R 408.30753a Roof extensions.

Rule 753a. Section 903.1 of the code is amended to read as follows:

903.1. Roof extension. All open vent pipes that extend through a roof shall be terminated at least 1 foot (305 mm) above the roof, except that if a roof is to be used for any purpose other than weather protection, then the vent extensions shall be run not less than 7 feet (2134 mm) above the roof.

R 408.30753b Roof extension unprotected.

Rule 753b. Section 903.1.1 is added to the code to read as follows:

903.1.1. Roof extension unprotected. Open vent pipes that extend through a roof shall be terminated not less than 12 inches, 304.8 mm, above the roof.

R 408.30754a Frost Closure.

Rule 754a. Section 903.2 of the code is amended to read as follows:

Section 903.2. Frost Closure. To prevent frost closure, every vent extension through a roof shall be a minimum of 3 inches (76 mm) in diameter. Any increase in the size of the vent shall be made inside the building a minimum of 1 foot (305 mm) below the roof or inside the wall.

R 408.30754b Extensions outside a structure.

Rule 754b. Section 903.7 of the code is amended to read as follows:

903.7. Extensions outside a structure. Vent pipes installed on the exterior of the structure shall be protected against freezing by insulation or heat, or both.

R 408.30755 Storm drainage.

Rule 755. Table 1102.4 of the code is amended to read as follows:

TABLE 1102.4

BUILDING STORM SEWER PIPE

| MATERIAL  | STANDARD  |
|---|---|
| Acrylonitrile butadiene styrene (ABS) plastic pipe in IPS diameters, including Schedule 40, DR 22 (PS 200) and DR 24 (PS 140); with a solid, cellular core or composite wall. | ASTM D2661; ASTM F628; ASTM F1488; CSA B181.1; CSA B182.1 |
| Cast-iron pipe  | ASTM A74; ASTM A888; CISPI 301                            |
| Concrete pipe   | ASTM C14; ASTM C76; CSA A257.1M; CSA A257.2M              |
| Copper or copper-alloy tubing (Type K, L, M or DWV)   | ASTM B75; ASTM B88; ASTM B251; ASTM B306                  |
| Polyethylene (PE) plastic pipe  | ASTM F667; ASTM F2306/F2306; ASTM                         |

|  |   |
|--|---|
|  | F2648/F2648M  |
| Polypropylene (PP) plastic pipe  | ASTM F2736; ASTM F2764; CSA B182.13   |
| Polyvinyl chloride (PVC) plastic pipe (Type DWV, SDR26, SDR35, SDR41, PS50 or PS100) in IPS diameters, including Schedule 40, DR 22 (PS 200) and DR 24 (PS 140); with a solid, cellular core or composite wall | ASTM D2665; ASTM D3034; ASTM F891; ASTM F1488; CSA B181.2; CSA B182.2; CSA B182.4 |
| Vitrified clay pipe  | ASTM C4; ASTM C700  |
| Stainless steel drainage systems, Type 316L  | ASME A112.3.1   |

R 408.30755a Rainfall rate conversion method.

Rule 755a. Section 1106.2.1 is added to the code to read as follows:

1106.2.1. Rainfall rate conversion method. The rainfall rate falling on a roof surface shall be converted to a gallon per minute (L/m) flow rate in accordance with equation 11-1.

R 408.30757 Horizontal drains within building and building sewers.

Rule 757. Sections 708.3, 708.3.4, and 708.3.5 of the code are being added to read as follows:

708.3 Where required. Cleanouts shall be located in accordance with sections 708.3.1, 708.3.3 to 708.3.5.

708.3.1. Horizontal drains within building and building sewers. All horizontal drains within buildings and building sewers shall be provided with cleanouts located not more than 100 feet (30 480 mm) apart.

For underground piping that is more than 10 inches in diameter, manholes shall be provided and located at every major change of direction, grade, elevation, or size of pipe or at intervals of not more than 400 feet (12 192 mm). Metal covers shall be provided for the manholes and shall be of sufficient weight to meet local traffic and loading conditions.

Within buildings, manhole covers shall be gastight and the manhole shall be vented with not less than a 4- inch (102 mm) pipe.

708.3.3. Changes of direction. Cleanouts shall be installed at each change of direction greater than 45 degrees (0.79 rad) in the building sewer, building drain and horizontal waste or soil lines. Where more than one change of direction occurs in a run of piping, only one cleanout shall be required for each 40 feet (12 192 mm) of developed length of the drainage piping.

708.3.4. Base of stack. A cleanout shall be provided at the base of each waste or soil stack.

708.3.5. Building drain and building sewer junction. There shall be a cleanout near the junction of the building drain and the building sewer. The cleanout shall be either inside or outside the building wall and shall be brought up to the finished ground level or to the basement floor level. An approved two-way cleanout is allowed to be used at this

location to serve as a required cleanout for both the building drain and building sewer. The cleanout at the junction of the building drain and building sewer shall not be required if the cleanout on a 3 – inch (76mm) or larger diameter soil stack is located within a developed length of 10 feet (3048 mm) of the building drain and building sewer connection. The minimum size of the cleanout at the junction of the building drain and building sewer shall comply with Section 708.7.

R 408.30757a Discharge pipe and fittings.

Rule 757a. Section 712.3.3 of the code is added to read as follows:

712.3.3. Discharge pipe and fittings. Discharge piping and fittings shall be constructed of approved materials.

R 408.30758 Minimum number of fixtures.

Rule 758. Sections 403.1, 403.1.1 and 403.3.1 and Table 403.1 of the code are amended to read as follows:

403.1. Minimum number of fixtures. Plumbing fixtures shall be provided for the type of occupancy and in the minimum number shown in Table 403.1. Types of occupancies not shown in Table 403.1 shall be considered individually by the code official. The number of occupants shall be determined in accordance with the Michigan building code. Occupancy classification shall be determined in accordance with the Michigan building code.

Exceptions:

1. The actual number of occupants determined by a supporting affidavit from the owner or agency.

2. Hand washing sinks in food service establishments shall be provided in accordance with section 6101 of the food law, 2000 PA 92, MCL 289.6101, incorporating by reference the United States Food and Drug Administration (FDA) food code 5-204.11 related to the location and placement of hand washing sinks.

3. Toilet facilities for public swimming pools shall be provided in accordance with R 325.2111 to R 325.2199.

4. Toilet facilities for childcare center, day care center, and nursery school facilities shall be provided in accordance with R 400.8101 to R 400.8840.

5. Toilet facilities for children's camps shall be provided in accordance with R 400.11101 to R 400.11413.

403.1.1 Fixture calculations. To determine the occupant load of each sex, the total occupant load shall be divided in half. To determine the required number of fixtures, the fixture ratio or ratios for each fixture type shall be applied to the occupant load of each sex in accordance with table 403.1. Fractional numbers resulting from applying the fixture ratios of table 403.1 shall be rounded up to the next whole number. For calculations involving multiple occupancies, the fractional numbers for each occupancy shall be summed and rounded up to the next whole number.

Exceptions:

1. The total occupant load shall not be required to be divided in half where approved statistical data indicate a distribution of the sexes of other than 50% of each sex.

2. Where multiple-user facilities are designed to serve all genders, the minimum fixtures count shall be calculated at 100%, based on total occupant load. The minimum number of required plumbing fixtures shall be in accordance with table 403.1. In multiple-user facilities, each fixture type shall be in accordance with ICC A117.1 and each urinal that is provided shall be located in a stall.

3. Distribution of the sexes is not required where single-user water closets and bathing room fixtures are provided in accordance with section 403.1.2.

403.3.1. Access. The route to the public toilet facilities required by section 403.3 shall not pass through kitchens, storage rooms, or closets. Access to the required facilities shall be from within the building. All routes shall comply with the accessibility requirements of the Michigan building code. The public shall have access to the required toilet facilities at all times that the building is occupied.

Draft

**TABLE 403.1**  
**MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES<sup>a</sup>**  
 (See Sections 403.1.1 and 403.2)

| NO. | CLASSIFICATION | OCCUPANCY        | DESCRIPTION  | WATER CLOSETS<br>(URINALS SEE<br>SECTION 419.2)                           |  | LAVATORIES  |        | BATHTUBS/<br>SHOWERS | DRINKING<br>FOUNTAIN<br>SECTION<br>410.1)<br>e,f (SEE | OTHER |
|-----|----------------|------------------|--|---|--|---|--------|----------------------|---|-------|
|     |                |                  |  | MALE  | FEMALE   | MALE  | FEMALE |                      |   |       |
| 1   | Assembly       | A-1 <sup>d</sup> | Theaters and other buildings for the performing arts and motion pictures   | 1 per 125   | 1 per 65   | 1 per 200   |        | 1 per 500            | 1 service sink  |       |
|     |                |                  | Nightclubs, bars, taverns, dance halls, and buildings for similar purposes | 1 per 40  | 1 per 40   | 1 per 75  |        | 1 per 500            | 1 service sink  |       |
|     |                |                  | Restaurants, banquet halls and food courts                                 | 1 per 75  | 1 per 75   | 1 per 200   |        | 1 per 500            | 1 service sink  |       |
| 1   | Assembly       | A-2 <sup>d</sup> | Casino gaming areas  | 1 per 100 for the first 400 and 1 per 250 for the remainder exceeding 400 | 1 per 50 for the first 400 and 1 per 150 for the remainder exceeding 400 | 1 per 250 for the first 750 and 1 per 500 for the remainder exceeding 750 | —      | 1 per 1,000          | 1 service sink  |       |
|     |                |                  | Auditoriums without  | 1 per 125   | 1 per 65   | 1 per 200   |        | 1 per 500            | 1 service sink  |       |

|     |  |  |  |           |             |                |
|-----|--|--|--|-----------|-------------|----------------|
|     | permanent seating, art galleries, exhibition halls, museums, lecture halls, libraries, arcades, and gymnasiums | 1 per 500  | 1 per 500  | 1 per 750 | 1 per 1,000 | 1 service sink |
|     |  |  |  |           |             |                |
|     | Passenger terminals and transportation facilities  | 1 per 500  | 1 per 75   | 1 per 200 | 1 per 1,000 | 1 service sink |
|     |  |  |  |           |             |                |
|     | Places of worship and other religious services.  | 1 per 150  | 1 per 40 for the first 1,520 and 1 per 60 for the remainder exceeding 1,520  | 1 per 200 | 1 per 1,000 | 1 service sink |
|     |  |  |  |           |             |                |
| A-4 | Coliseums, arenas, skating rinks, pools, and tennis courts for indoor sporting events and activities           | 1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500 | 1 per 40 for the first 1,520 and 1 per 60 for the remainder exceeding 1,520  | 1 per 200 | 1 per 1,000 | 1 service sink |
|     |  |  |  |           |             |                |
| A-5 | Stadiums, amusement parks, bleachers, and grandstands for outdoor sporting events and activities               | 1 per 75 for the first 1,500 and 1 per 120 for the remainder exceeding 1,500 | 1 per 40 for the first 1,520 and 1 per 120 for the remainder exceeding 1,520 | 1 per 200 | 1 per 1,000 | 1 service sink |
|     |  |  |  |           |             |                |

|   |                        |             |   |   |   |  |  |  |           |                             |
|---|------------------------|-------------|---|---|---|--|--|--|-----------|-----------------------------|
| 2 | Business               | B           | Buildings for the transaction of business, professional services, other services involving merchandise, office buildings, banks, light industrial, and similar uses | 1 per 25 for the first 50 and 1 per 50 for the remainder exceeding 50 | 1 per 40 for the first 80 and 1 per 80 for the remainder exceeding 80 |  |  |  | 1 per 100 | 1 service sink <sup>e</sup> |
| 3 | Educational            | E           | Educational facilities  | 1 per 50  | 1 per 50  |  |  |  | 1 per 100 | 1 service sink              |
| 4 | Factory and industrial | F-1 and F-2 | Structures in which occupants are engaged in work fabricating, or assembling, or processing of products or materials  | 1 per 100   | 1 per 100   |  |  |  | 1 per 400 | 1 service sink              |
| 5 | Institutional          | I-1         | Custodial care facilities   | 1 per 10  | 1 per 10  |  |  |  | 1 per 100 | 1 service sink              |

|     |   |  |              |              |          |             |                          |
|-----|---|--|--------------|--------------|----------|-------------|--------------------------|
|     |   | Medical care recipients in hospitals and nursing homes | 1 per room c | 1 per room c | 1 per 15 | 1 per 100   | 1 service sink per floor |
| I-2 | Employees<br>Visitors in hospitals and nursing homes <sup>b</sup>                   | 1 per 25   | 1 per 35     |              |          | 1 per 100   |                          |
|     | in hospitals and nursing homes  | 1 per 75   | 1 per 100    |              |          | 1 per 500   |                          |
|     | Prisons <sup>b</sup>  | 1 per cell   | 1 per cell   | 1 per 15     | 1 per 15 | 1 per 100   | 1 service sink           |
| I-3 | Reformatories, detention centers, and correctional centers <sup>b</sup>             | 1 per 15   | 1 per 15     |              |          | 1 per 100   | 1 service sink           |
|     | Employees in reformatories, detention centers and correctional centers <sup>b</sup> | 1 per 25   | 1 per 35     |              |          | 1 per 100   | -                        |
| I-4 | Adult day care and childcare  | 1 per 15   | 1 per 15     | 1            |          | 1 per 100   | 1 service sink           |
| M-1 | Retail stores, service stations, shops, salesrooms, markets and shopping centers    | 1 per 500  | 1 per 750    |              |          | 1 per 1,000 | 1 service sink           |
| 6   | Mercantile  |  |              |              |          |             |                          |



|               |   |                     |                     |                     |                     |           |   |
|---------------|---|---------------------|---------------------|---------------------|---------------------|-----------|---|
| R-1           | Hotels, motels, and boarding houses (transient)                           | 1 per sleeping unit | 1 per sleeping unit | 1 per sleeping unit | 1 per sleeping unit | —         | 1 service sink  |
| R-2           | Dormitories, fraternities, sororities and boarding houses (not transient) | 1 per 10            | 1 per 10            | 1 per 10            | 1 per 8             | 1 per 100 | 1 service sink  |
| R-2           | Apartment house   | 1 per dwelling unit | 1 per dwelling unit | 1 per dwelling unit | 1 per dwelling unit | —         | 1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per 20 dwelling units |
| R-3           | Congregate living facilities with 16 or fewer individuals                 | 1 per 10            | 1 per 10            | 1 per 10            | 1 per 8             | 1 per 100 | 1 service sink  |
| R-3           | 1 and 2 family dwelling and lodging houses with five or fewer             | 1 per dwelling unit | 1 per dwelling unit | 1 per dwelling unit | 1 per dwelling unit | —         | 1 kitchen sink per dwelling unit; 1 automatic   |
| 7 Residential |   |                     |                     |                     |                     |           |   |

|   |                       |  |   |           |           |         |             |                |   |
|---|-----------------------|--|---|-----------|-----------|---------|-------------|----------------|---|
|   |                       |  | guestrooms  |           |           |         |             |                | clothes washer connection per dwelling unit |
|   | R-4                   |  | Congregate living facilities with 16 or fewer individuals   | 1 per 10  | 1 per 10  | 1 per 8 | 1 per 100   | 1 service sink |   |
| 8 | Storage<br>S-1<br>S-2 |  | Structure for the storage of goods, warehouses, storehouses, and freight depots. Low and moderate hazard. | 1 per 100 | 1 per 100 | _____   | 1 per 1,000 | 1 service sink |   |

- a. The fixtures shown are based on 1 fixture being the minimum required for the number of individuals indicated or any fraction of the number of individuals indicated. The number of occupants shall be determined by the International Building Code.
- b. Toilet facilities for employees shall be separate from facilities for inmates or care patients.
- c. A single-occupant toilet room with 1 water closet and 1 lavatory serving not more than 2 adjacent patient sleeping units shall be allowed provided that each patient sleeping unit has direct access to the toilet room and provision for privacy for the toilet room user is provided.
- d. The occupant load for seasonal outdoor seating and entertainment areas shall be included when determining the minimum number of facilities required.
- e. For business and mercantile classifications with an occupant load of 15 or fewer, service sinks shall not be required.
- f. The required number and type of plumbing fixtures for outdoor public swimming pools shall be in accordance with section 609 of the International Swimming Pool and Spa Code.

R 408.30758a High and low drinking fountains minimum number.

Rule 758a. Section 410.3.1 is added to the code to read as follows:

410.3.1. High and low drinking fountains minimum number. Where drinking fountains are required, no fewer than 2 drinking fountains shall be provided. One drinking fountain shall comply with the requirements for people who use a wheelchair, and 1 drinking fountain shall comply with the requirements for standing individuals.

Exceptions:

1. A single drinking fountain with 2 separate spouts that complies with the requirements for individuals who use a wheelchair and standing individuals shall be allowed to be substituted for 2 separate drinking fountains.
2. Where drinking fountains are primarily for children's use, the drinking fountains for people using wheelchairs shall be allowed to comply with the children's provisions in ICC A117.1 and drinking fountains for standing children shall be allowed to have the spout at 30 inches, 762 mm, minimum above the floor.
3. Referencing building code for all height requirements of drinking fountains and water coolers.

R408.30758b Water supply.

Rule 758b. Section 411.3 is added to the code to read as follows:

411.3. Water supply. Where hot and cold water are supplied to an emergency shower or eyewash station, the temperature of the water supply shall only be controlled by temperature-actuated mixing valve complying with ASSE 1071. Where water is supplied directly to an emergency shower or eyewash station from a water heater, the water heater shall comply with ASSE 1085, See section 607.1.2.

R 408.30762 Floor drains; public toilet rooms.

Rule 762. Section 413.5 is added to the code to read as follows:

413.5. Floor drains; public toilet rooms. In all public toilet rooms that contain a combination of 3 or more water closets or urinals, at least 1 approved floor drain shall be installed connecting to the sanitary system. However, stall urinals may serve as floor drains if the entire floor can be drained to the urinals.

R 408.30763a Tempered water for public hand-washing facilities.

Rule 763a. Section 416.5 is added to the code to read as follows:

416.5. Tempered water for public hand-washing facilities. Tempered water shall be delivered from lavatories and group wash fixtures located in public toilet facilities in accordance with section 607.1. Tempered water shall be delivered through an approved water-temperature limiting device that conforms to ASSE 1070 or CSA B125.3.

R 408.30777 Scope; water service; distance limits; method of installations.

Rule 777. Section 601.1 of the code is amended to read as follows:

601.1. Scope. The provisions of this article shall control the design and installation of water supply systems, both hot and cold. Refer to 1976 PA 399, MCL 325.1001 to 325.1023, for additional requirements on water supply systems pertaining to establishments that are subject to regulation or licensure, or both, by the department of environmental quality.

Compliance with the provisions of this article, however, does not relieve any person from complying with the additional requirements imposed upon water supply systems pursuant to authority vested in the Michigan department of environmental quality under 1976 PA 399, MCL 325.1001 to 325.1023, 1978 PA 368, MCL 333.1101 to 333.25211, and 1987 PA 96, MCL 125.2301 to 125.2350, or other applicable provisions of state law.

R 408.30785 Requirements for discharge piping.

Rule 785. Section 504.6 of the code is amended to read as follows:

504.6. Requirements for discharge piping. (1) Relief valves shall not discharge so as to be a hazard, a potential cause of damage, or a nuisance.

A relief valve discharge pipe shall be provided for each individual relief valve and shall meet all of the following:

- (a) Shall terminate atmospherically not more than 4 inches (1220 mm) from the floor with an unthreaded end.
  - (b) Shall not be interconnected.
  - (c) Valves shall not be connected in the relief valve discharge pipe.
  - (d) Shall be rigid pipe approved for water distribution, with a minimum temperature rating of 210 degrees Fahrenheit.
  - (e) Shall have the same nominal inside diameter as the relief valve outlet and shall drain by gravity flow.
  - (f) Shall discharge to the floor, to the pan serving the water heater or storage tank, or to a waste receptor.
- (2) The outlet of a pressure, temperature or other relief valve shall not be directly connected to the drainage system.

R 408.30791 Definitions.

Rule 791. (1) Section 202 of the code is amended to amend the definition of code official and add the definition of act.

(2) "Act" means the Stille-DeRossett-Hale single state construction code act, 1972 PA 230, MCL 125.1501 to 125.1531.

(3) "Code official" means individual who is registered pursuant to article 10 of the skilled trades regulation act, 2016 PA 407, MCL 339.6001 to 339.6023, and who is authorized to conduct the inspections needed to determine compliance with the provisions of this code. Construction or work that requires a permit shall be subject to inspection by the code official. This construction or work shall remain visible and be accessible for inspection purposes until approved.

R 408.30792 Food utensils, dishes, pots and pans sinks.

Rule 792. Section 802.1.8 of the code is amended to read as follows:

802.1.8. Food utensils, dishes, pots and pans sinks. Sinks used for the washing, rinsing, or sanitizing of utensils, dishes, pots, pans, or service ware where used in the preparation, serving, or eating of food shall discharge indirectly through an air gap or an air break to the drainage system.

Exception: When required, a washing sink or wash compartment shall be directly connected to a hydromechanical grease interceptor. The outlet of a hydromechanical grease interceptor shall directly connect to the sanitary drainage system.

Draft