

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

CONSTRUCTION CODE

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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, 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 408.30715, R 408.30717, R 408.30718, R 408.30741c, R 408.30757, and R 408.30791 of the Michigan Administrative Code are amended R 408.30726, R 408.30727, R 408.30729, and R 408.30755 are added, and R 408.30719, and 408.30720 are rescinded as follows: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, 2018 edition, including appendices A, B, C, D, E, F, and G, except for sections 104.2, 104.5 to 104.7, 106.3, 106.3.3, 106.5.5, 106.6.1, 106.6.2, 106.6.3, 107.2.5, 107.2.5.1, 107.2.5.2, 107.2.5.3, 108.3, 109.1, 109.2 to 109.7, 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, International 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 for \$83.00 for each code book. The code may be purchased from the International Code Council, through the bureau's website at www.michigan.gov/bcc for \$83.00 for each code book.

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 hereinafter 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 herein defined and shall apply to existing or proposed buildings and structures in the 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 (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 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 act 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 408.30717 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 408.30719 Rescinded.

R 408.30720 Rescinded.

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 408.30727 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
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

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
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 chloride (CPVC/AL/CPVC)	ASTM F2855
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

609.3 Hot water. Hot water shall be provided to supply all of the hospital fixture, 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 408.30741c 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 408.30755 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
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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/F2548M
Polypropylene (PP) plastic pipe	ASTM F2736; ASTM F2764; CSA B182.13
Vitrified clay pipe	ASTM C4; ASTM C700
Stainless steel drainage systems, Type 316L	ASME A112.3.1

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 408.30791 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.