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GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
LANSING

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DIRECTOR

**PLEASE SHARE THIS INFORMATION WITH ELECTRICAL PLAN REVIEW AND
INSPECTION STAFF AS THIS NOTICE IS BEING MAILED TO LOCAL UNIT OF
GOVERNMENT CLERKS ONLY.**

April 11, 2024

NOTICE TO CLERKS

Pursuant to Section 125.1506 of the Stille-DeRossett-Hale Single State Construction Code, 1972 PA 230, attached is a copy of the promulgated rules for the Michigan Part 8 Electrical, Michigan Part 9A Mechanical, and Michigan Part 7 Plumbing Code Rules. These rules are revised to update the code to the 2023 National Electrical Code (NEC), 2021 International Mechanical Code (IMC), and 2021 International Plumbing Code (IPC) and became effective statewide on March 12, 2024. Every unit of government with code administration and enforcement responsibility for the above-mentioned rules must enforce these new rules.

PLEASE NOTE:

The rules provided in this packet are only those rules affected during the recent Michigan amendment process and do not include all rules contained in the Part 8, Part 9A and Part 7 amendments. As Michigan also adopts by reference rules from the 2023 NEC, 2021 IMC, and 2021 IPC it is the responsibility of the code-enforcing agency to assure the **complete codes** are purchased for use by inspection staff and a copy is available for inspection by the public.

The bureau has coordinated sales of the 2023 NEC, 2021 IMC and 2021 IPC with the International Code Council (ICC). A web link has been added to the bureau's website at www.michigan.gov/bcc, to allow customers to purchase the code books directly from ICC at a cost of \$153.00 for the NEC and \$87.50 each for the IMC and IPC. The Michigan Part 8 Electrical Code Rules, Michigan Part 9A Mechanical Code Rules and Michigan Part 7 Plumbing Code Rules can be downloaded for free from the bureau's website.

Questions regarding the updated rules or this notice may be directed to LARA-BCC-RULES@Michigan.gov.

Attachments

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

CONSTRUCTION CODE

Filed with the secretary of state on November 13, 2023

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

October 9, 2023

website at 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 408.30716 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 408.30725d 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 408.30726a 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 |

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| Vitrified clay | ASTM C700 |
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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 B137.18 |
| 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 408.30729 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 |

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|---|--|
| 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 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 |

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| 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 |

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| 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 408.30732 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 408.30736 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, section 607.1.2.

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 408.30755 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 408.30758 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.

TABLE 403.1
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES^a
 (See Sections 403.1.1.1 and 403.2)

| NO. | CLASSIFICATION | OCCUPANCY | DESCRIPTION | WATER CLOSETS (URINALS SEE SECTION 419.2) | | LAVATORIES | | BATHTUBS/ SHOWERS | DRINKING FOUNTAIN ^{e,f} (SEE SECTION 410.1) | OTHER |
|-----|----------------|------------------|--|---|--|---|--------|----------------------|--|----------------|
| | | | | MALE | FEMALE | MALE | FEMALE | | | |
| 1 | Assembly | A-1 ^d | 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 |
| | | A-2 ^d | Restaurants, banquet halls and food courts | 1 per 75 | 1 per 75 | 1 per 200 | | | 1 per 500 | 1 service sink |
| | | | 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 |
| | | A-3 ^d | Auditoriums without | 1 per 125 | 1 per 65 | 1 per 200 | | | 1 per 500 | 1 service sink |

| | | | | | | | | |
|---|------------|-----|---|--------------|--------------|----------|-------------|--------------------------|
| 6 | Mercantile | I-2 | 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 |
| | | | Employees in hospitals and nursing homes ^b | 1 per 25 | 1 per 35 | | 1 per 100 | |
| | | | Visitors in hospitals and nursing homes | 1 per 75 | 1 per 100 | | 1 per 500 | |
| | | | Prisons ^b | 1 per cell | 1 per cell | 1 per 15 | 1 per 100 | 1 service sink |
| | | | Reformatories, detention centers, and correctional centers ^b | 1 per 15 | 1 per 15 | 1 per 15 | 1 per 100 | 1 service sink |
| | | I-3 | Employees in reformatories, detention centers and correctional centers ^b | 1 per 25 | 1 per 35 | - | 1 per 100 | - |
| | | | Adult day care and childcare | 1 per 15 | 1 per 15 | 1 | 1 per 100 | 1 service sink |
| | | | Retail stores, service stations, shops, salesrooms, markets and shopping centers | 1 per 500 | 1 per 750 | — | 1 per 1,000 | 1 service sink |

| | | | | | | | |
|------------------|-----|---|---------------------|---------------------|---------------------|-----------|---|
| 7 Residential | R-1 | Hotels, motels, and boarding houses (transient) | 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 8 | 1 per 100 | 1 service sink |
| | R-2 | Apartment house | 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 8 | 1 per 100 | 1 service sink |
| | R-3 | 1 and 2 family dwelling and lodging houses with five or | 1 per dwelling unit | 1 per dwelling unit | 1 per dwelling unit | — | 1 kitchen sink per dwelling unit; 1 automatic |

| | | | | | | | |
|---|---------------------------|---|-----------|-----------|---------|-------------|--|
| | | fewer 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 S-1 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.

R 408.30758b 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.

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

DIRECTOR'S OFFICE

CONSTRUCTION CODE

Filed with the secretary of state on November 13, 2023

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(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. 1996-2, 2003-1, 2008-4, 2011-4, and 2017-1, MCL 445.2001, 445.2011, 445.2025, 445.2030, and 339.3102)

R 408.30801, R 408.30808, R 408.30810, R 408.30818, R 408.30819, R 408.30823, R 408.30838, and R 408.30873 of the Michigan Administrative Code are amended, R 408.30870 is added, and R 408.30826 and R 408.30828 are rescinded, as follows:

PART 8. ELECTRICAL CODE

R 408.30801 National electrical code; adoptions by reference; inspection; purchase.

Rule 801. (1) The standards contained in the national electrical code 2023 second printing edition, including TIA 70-23-1 to 70-23-13, Errata 70-23-1 to 70-23-6, and Annex H, except sections 80.2, 80.5, 80.15, 80.23, 80.27, 80.29, 80.31, 80.33, 80.35, and 90.6, as published by the national fire protection association (NFPA), shall govern the installation, replacement, alteration, relocation, and use of electrical systems or material. With the exceptions noted, the national electrical code is adopted in these rules by reference.

(2) All references to the ANSI/ASME A17.1 2016, safety code for elevators and escalators mean the Michigan elevator code and all references to the national electrical code mean the Michigan electrical code.

(3) NFPA 110, standard for emergency and standby power systems, 2019 edition and NFPA 111, standard on stored electrical energy emergency and standby power systems, 2019 edition, are adopted by reference in these rules.

(4) The codes are available for inspection 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.

(5) The National Electrical Code, NFPA 110 and NFPA 111 may be purchased from the National Fire Protection Association, 1 Batterymarch Park, Quincy, Massachusetts 02169, or through the bureau's website at www.michigan.gov/bcc, at a cost as of the time of adoption of these rules of \$153.00 for the National Electrical Code, \$149.00 for the NFPA 110, and \$149.00 for the NFPA 111 each, respectively.

R 408.30808 Scope.

Rule 808. Section 80.1 is amended to read as follows:

80.1 Scope. The following are covered:

- (1) The inspection of electrical installations as covered by 90.2.
- (2) The review of construction plans, drawings, and specifications for electrical systems.
- (3) The design, alteration, modification, construction, maintenance, and testing of electrical systems and equipment.
- (4) The regulation and control of electrical installations at special events, including, but not limited to, exhibits, trade shows, amusement parks, and other similar special occupancies.

R 408.30810 Authority.

Rule 810. Section 80.13 is added to the code to read as follows:

80.13. Authority. Where used in this article, the term authority having jurisdiction shall include the electrical inspector or other individuals designated by the governing body. This code shall be administered and enforced by the authority having jurisdiction designated by the governing authority as follows:

(1) Disconnection. When the use of electrical equipment or its installations is found to be dangerous to human life or property, the authority having jurisdiction may have the premises disconnected from its source of electric supply. When this equipment or installation has been condemned or disconnected, a notice shall be placed on the equipment or installation listing the causes for the condemnation, the disconnection, or both, and the penalty for the unlawful use of the equipment or installation. Written notice of this condemnation or disconnection and the causes of it shall be given within 24 hours to the owners, the occupant, or both, of the building, structure, or premises. It is unlawful for an individual to remove this notice, to reconnect the electrical equipment to its source of electric supply, or to use or permit to be used electric power in electrical equipment until the causes for the condemnation or disconnection have been remedied to the satisfaction of the inspection authorities.

(2) Delegate authority. The authority having jurisdiction may delegate to other qualified individuals the powers as necessary for the proper administration and enforcement of this code.

R 408.30818 Permits.

Rule 818. Section 80.19 is added to the code to read as follows:

80.19. Permits and approvals. Permits and approvals shall conform to subdivisions (a) to (g), as follows:

- (a) Transfer of permits. Permits shall not be transferable.
- (b) Posting of permits. A copy of the permit shall be posted or otherwise readily accessible at each work site.
- (c) Permit not required. A permit is not required for all of the following:
 - (1) Lamps and cord connections. Installation or replacement of equipment such as lamps and of electric utilization equipment approved for connection to suitable permanently installed receptacles.
 - (2) Minor repair work. Replacement of flush or snap switches, fuses, lamp sockets, and receptacles, and other minor maintenance and repair work, such as replacing worn cords

and tightening connections on a wiring device and minor repair work, as that term is defined in section 703 of the skilled trades regulation act, 2016 PA 407, MCL 339.5703.

(3) Electrical manufacturing. The process of manufacturing, testing, servicing, or repairing electrical equipment or apparatus.

(4) Statute exemptions. Installations that are referred to in section 737(3)(a), (b), (c), (d), (f), (h), (l), and (m) of the skilled trades regulations act, 2016 PA 407, MCL 339.5737.

(d) Expiration. Permits shall expire 180 days after issuance and are extended 180 days from the last inspection date.

(e) Annual permits. In lieu of an individual permit for each installation or alteration, an annual permit shall, on application, be issued to an individual, firm, or corporation regularly employing 1 or more employees for the installation, alteration, and maintenance of electrical equipment in or on buildings or premises owned or occupied by the applicant for the permit. On application, an electrical contractor as an agent for the owner or tenant shall be issued an annual permit. The applicant shall keep records of all work done, and the records shall be transmitted periodically to the electrical inspector.

(f) Inspection and approvals.

(1) Inspection notification. On the completion of an installation of electrical equipment that has been made under a permit, the individual, firm, or corporation making the installation shall notify the electrical inspector having jurisdiction.

(2) Approvals. Where the inspector finds the installation to be in conformity with the code, state statutes, rules, and, if applicable, local ordinances, the inspector shall issue to the individual, firm, or corporation making the installation a final approval, or certificate of approval provided payment has been made, which authorizes the connection into the supply of electricity.

(3) Concealment. When a portion of the electrical installation within the jurisdiction of an electrical inspector is to be hidden from view by the permanent placement of parts of the building, the individual, firm, or corporation installing the equipment shall notify the electrical inspector, and the equipment shall not be concealed until it has been approved by the electrical inspector. The code official and the jurisdiction shall not be liable for expense entailed in the removal or replacement of material required to allow inspection.

(g) Applications and extensions. The authority having jurisdiction may grant one 180-day extension of the original permit time period of 180 days, upon presentation of the permittee of a satisfactory reason for failure to start or complete the work or activity authorized by the permit.

R 408.30819 Plans and specifications.

Rule 819. Sections 80.21, 80.21.1, and 80.21.2 are added to the code to read as follows:

80.21. Plans required. An applicant shall submit a detailed set of plans and specifications with the application for an electrical permit for wiring or alteration to an electrical system if the system requires installation of electrical equipment that has an ampacity of more than 400 amperes, at 1,000 volts or less, for the service or feeder and if the calculated floor area in a building is more than 3,500 square feet. The enforcing agency may request plans for projects that include an unusual design. Plans and specifications shall conform to the following:

(a) Lighting layout.

(b) Circuiting.

- (c) Switching.
- (d) Conductor and raceway sizes.
- (e) Wattage schedule.
- (f) Service location and riser diagram.
- (g) Load calculations and available fault current calculations.
- (h) A proposed method of construction that is drawn with symbols of a standard form.

All conductors are assumed to be copper unless otherwise stated in the plan. Specifications, when provided, shall also include the information listed in this rule. The selection of suitable disconnect and overcurrent devices to provide proper coordination and interrupting capacity for a wiring system is the responsibility of the designer. The enforcing agency, when approving electrical plans, does not assume responsibility for the design or for deviations from electrical drawings. The permit holder shall ensure that the plans and specifications approved by the enforcing agency, or a certified copy of the plans and specifications, where required, are available on the jobsite for the use of the enforcing agency.

80.21.1. Plan revisions. Work shall be installed pursuant to the code and approved construction documents, and changes made during construction that are not in compliance with the approved construction documents shall be resubmitted for approval as an amended set of construction documents.

80.21.2. Information on construction documents. Construction documents shall be dimensioned and drawn on suitable material. Electronic media documents may be submitted when approved by the enforcing agency. Construction documents shall be of sufficient clarity to indicate the location, nature, and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules, and regulations as determined by the enforcing agency.

R 408.30823 Connection to electricity supply.

Rule 823. Section 80.25 is amended to the code to read as follows:

80.25. Connection to electricity supply. Connections to the electric supply shall conform to subdivisions (a) and (b).

(a) Supply electricity. Except where work is done under an annual permit and except as otherwise provided in section 80.25, it is unlawful for an individual, firm, or corporation to make connection to a supply of electricity or to supply electricity to electrical equipment installation for which a permit is required or that has been disconnected or ordered to be disconnected.

(b) Utility emergency connections. The governing utility may reconnect the electrical service, before approval by the enforcing agency, following emergency repairs performed by an electrical contractor licensed pursuant to article 7 of the skilled trades regulation act, 2016 PA 407, MCL 339.5701 to 339.5739. The electrical contractor shall secure a permit by the next business day after the work is completed. This requirement is not applicable to new service connections, upgrades, structural fires, or other planned modifications.

R 408.30826 Rescinded.

R 408.30828 Rescinded.

R 408.30838 NFPA code; adoption by reference.

Rule 838. Sections 700.9 and 701.9 of the code are amended to read as follows:

700.9. Installation. Emergency systems shall be installed pursuant to NFPA 110 and NFPA 111, 2019 editions, which are adopted by reference in R 408.30801.

701.9. Installation. Legally required standby systems shall be installed pursuant to NFPA 110 and NFPA 111, 2019 editions, which are adopted by reference in R 408.30801.

R 408.30870 NFPA code; adoption by reference.

Rule 870 Section 230.85 is added to the code to read as follows:

230.85 Emergency disconnects. For 1- and 2-family dwelling units, an emergency disconnecting means shall be installed.

(A) General.

(1) Location. The disconnecting means shall be installed in a readily accessible outdoor location on or within sight of the dwelling unit.

Exception: Where the requirements of section 225.41 are met, this section shall not apply.

(2) Rating. The disconnecting means shall have a short-circuit current rating equal to or greater than the available fault current.

(3) Grouping. If more than 1 disconnecting means are provided, they shall be grouped.

(B) Disconnects. Each disconnect shall be a service disconnect.

(C) Replacement. Where service equipment is replaced, all of the requirements of this section shall apply.

Exception: Where only meter sockets, service entrance conductors, or related raceways and fittings are replaced, the requirements of this section shall not apply.

(D) Identification of other isolation disconnects. Where equipment for isolation of other energy source systems is not located adjacent to the emergency disconnect required by this section, a plaque or directory identifying the location of all equipment for isolation of other energy sources shall be located adjacent to the disconnecting means required by this section.

(E) Marking.

(1) Marking text. The service disconnecting means shall be marked as follows:

“EMERGENCY DISCONNECT, SERVICE DISCONNECT”.

R 408.30873 Uses permitted.

Rule 873. Sections 334.10 and 334.12(A) of the code are amended to read as follows:

334.10. Uses Permitted. Type NM and type NMC cables may be used in the following, except as prohibited in section 334.12:

(1) One- and 2-family dwellings and their attached or detached garages and storage buildings.

(2) Multifamily dwellings and their detached garages.

(3) In other structures exceeding 1 floor above grade, cables shall be concealed within walls, floors, or ceilings that provide a thermal barrier of material that has not less than a 15-minute finish rating as identified in listings of fire rated assemblies pursuant to the Michigan building code.

(4) Cable trays in structures permitted to be types III, IV, or V where the cables are identified for the use.

334.12(A). Uses not permitted. Types NM and NMC cable shall not be permitted as follows:

- (1) In a dwelling or structure not specifically permitted in section 334.10(1), (2) and (3).
- (2) Exposed in dropped or suspended ceilings in other than 1- and 2-family and multifamily dwellings.
- (3) As service-entrance cable.
- (4) In commercial garages having hazardous or classified locations as defined in section 511.3.
- (5) In theaters and similar locations, except where permitted in section 518.4(B).
- (6) In motion picture studios.
- (7) In storage battery rooms.
- (8) In hoistways or on elevators or escalators.
- (9) Embedded in poured cement, concrete, or aggregate.
- (10) In hazardous or classified locations, except where specifically permitted by other articles in this code.

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R 408.30901a, R 408.30904a, R 408.30905a, R 408.30906a, R 408.30923a, R 408.30928a, R 408.30935a, R 408.30936a, R 408.30945a, R 408.30946, R 408.30995a, and R 408.30996 of the Michigan Administrative Code are amended, R 408.30918 and R 408.30947b is added, and R 408.30902a, R 408.30908a, R 408.30910a, R 408.30912a, R 408.30927a, R 408.30947a, and R 408.30948 are rescinded, as follows:

PART 9A. MECHANICAL CODE

AMENDMENTS AND ADDITIONS TO BASIC MECHANICAL CODE

R 408.30901a International mechanical code; adoption by reference.

Rule 901a. (1) The provisions of the international mechanical code, 2021 edition, except for sections 103.1 to 103.3, 104.2, 104.8, 104.8.1, 106.1.1, 106.1.2, 106.3, 106.3.2, 106.4.5, 109.1 to 109.6, 112.2.5 to 112.2.5.3, 113.1 to 113.4, 114.1, 115.3, 116.1 to 116.4, 1101.9, 1102.3, appendix B, and appendix C, govern the construction, alteration, relocation, demolition, use, and occupancy of buildings and structures. With the exceptions noted, the code is adopted in these rules by reference.

(2) 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.

(3) ASHRAE 15-2022 edition: Safety Standard for Refrigeration Systems and ASHRAE 34-2022 edition: Designation and Safety Classification of Refrigerants can be purchased at www.techstreet.com/ashrae for \$178.00. UL/CSA 60335-2-40-2022 edition: Household and Similar Electrical Appliances-Safety-Part 2-40: Particular Requirements for Electrical Heat Pumps, Air Conditioners and Dehumidifiers can be purchased at www.shopulstandards.com for \$521.00. UL/CSA 60335-2-89-2021 edition: Household

and Similar Electrical Appliances-Safety-Part 2-89: Particular Requirements for Commercial Refrigerating Appliances with an incorporated or Remote Refrigerant Unit or Compressor can be purchased at www.shopulstandards.com for \$519.00. Inspection of standards are available at the Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes, 611 W. Ottawa Street First Floor Ottawa Building, Lansing, Michigan 48933, or purchased through the bureau's website at www.michigan.gov/bcc. Additionally, the standards adopted are available for purchase from www.techstreet.com/ashrae and www.shopulstandards.com. The cost for purchase of the individual standard is noted in this subrule.

(4) The 2021 Michigan Mechanical code is available for inspection and purchase at the 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 of construction code's website at www.michigan.gov/bcc, at a cost as of the time of adoption of these rules of \$87.50 for each code book.

R 408.30902a Rescinded.

R 408.30904a Right of entry.

Rule 904a. Section 104.4 of the code is amended to read as follows:

104.4. If a building or premises are occupied, the code official shall present 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 another 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. If a code official obtains 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 allow the code official prompt entry into the building or premises to inspect or examine the building or premises pursuant to this code.

R 408.30905a Definitions.

Rule 905a. The following definitions are added to section 202 as follows:

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

(b) "Cold weather months" means November 1 through April 1 in Michigan Energy Code climate zone 5A and from October 15 through May 1 in Michigan Energy Code climate zones 6A and 7.

(c) "Occupiable space" means a room or enclosed space designed for regular or non-regular human occupancy in which individuals congregate for activities, amusement, educational or similar purposes, or in which occupants are engaged at labor, and which is equipped with means of egress, heat, light, and ventilation facilities meeting the

requirements of this code. Occupiable space does not include those spaces that are intended primarily for other purposes such as storage rooms and equipment rooms.

R 408.30906a Work permit; submitting plans and specifications to authority.

Rule 906a. Sections 106.2, 106.3.1 106.4, 106.4.3, 106.4.4 of the code are amended to read as follows:

106.2. Permits not required. A person is not required to obtain a permit to perform mechanical work on any of the following items:

- (a) A portable heating or gas appliance that has inputs of less than 30,000 Btu's per hour.
- (b) Portable ventilation appliances and equipment.
- (c) A portable cooling unit.
- (d) Steam, hot water, or chilled water piping within any heating or cooling equipment or appliances regulated by the code.
- (e) Except for a heat exchanger, replacement of any manufacturer installed part on a listed and labeled appliance or listed and labeled equipment, if the replacement does not alter the approval of the appliance or equipment or make the appliance or equipment unsafe.
- (f) Self-contained refrigeration systems that contain 10 pounds or less of refrigerant, or that are actuated by motors of 1.5 horsepower or less.
- (g) Portable fuel cell appliances that are not connected to a fixed piping system and are not interconnected to a power grid.
- (h) An oil burner that does not require connection to a flue, such as an oil stove and a heater equipped with a wick.
- (i) Installing gas piping limited to 10 feet in length and not more than 6 fittings when changing or relocating a gas meter or regulator.
- (j) When installing geothermal vertical closed loops under the supervision of a mechanical contractor licensed in HVAC as long as the company meets both the following:
 - (1) Has obtained a certificate of registration as a well drilling contractor pursuant to part 127 of the public health code, 1978 PA 368, MCL 333.12701 to 333.12771.
 - (2) Has installed the geothermal vertical closed loops in accordance with the department of environment, Great Lakes, and energy's best practices regarding geothermal heat pump closed loops.

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

106.3.1 Construction documents.

(1) Construction documents, engineering calculations, diagrams, and other data shall be submitted in 2 or more sets with each application for a permit. Code officials may require additional construction documents at any point during construction. The code official shall require construction documents, computations, and specifications to be prepared and designed by a registered design professional, licensed in accordance with the occupational code, 1980 PA 299, MCL 339.101 to 339.2677.

Exceptions:

1. The code official may waive the submission of construction documents, calculations, or other data if the nature of the work applied for is such that reviewing of construction documents is not necessary to determine compliance with the code.

2. Construction documents shall not be required when obtaining a permit from the bureau of construction codes for any of the following circumstances:

- a. Alterations and repair work determined by the mechanical official to be of a minor nature.
- b. Business, mercantile, and storage use group buildings having HVAC equipment only, with 1 fire area and not more than 3,500 square feet.
- c. Work completed by a governmental subdivision or state agency costing less than \$15,000.00.

(2) Where special conditions exist, the code official may require additional construction documents to be prepared by a registered design professional.

(3) Construction documents shall be drawn to scale and shall be of sufficient clarity to indicate the location, nature, and extent of the work proposed and show in detail that the work conforms to the provisions of this code.

(4) Construction documents for buildings more than 2 stories in height shall indicate where penetrations will be made for mechanical systems, and the materials and methods for maintaining required structural safety, fire-resistance rating, and fire blocking.

106.4. Permit issuance. The enforcing agency shall review the application, construction documents, and other data filed by an applicant for a permit in accordance with the act. If the enforcing agency finds that the proposed work conforms to the requirements of the act, the code, and all other applicable laws and ordinances, and that all fees prescribed by the act have been paid, then the enforcing agency shall issue a permit to the applicant.

106.4.3. 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 the permit has not started within 180 days after the date of the permit is issued, or if the work authorized by the permit is suspended or abandoned at any time after the work has started, for a period of 180 days. Before work is recommenced on a project where a permit has expired, the permit must either be restored to "Issued" status and all necessary fees must be paid, or a new permit must be secured. If the code has changed and the work was not started, a new permit shall be first obtained, provided no changes have been made or will be made in the original construction document and that suspension or abandonment has not exceeded 1 year.

106.4.4. Extensions. A permittee holding an unexpired permit may apply for an extension of the time within which the permittee may begin work under that permit if for good and satisfactory reasons. The code official shall extend the time for action by the permittee for a period not exceeding 180 days if there is reasonable cause. No permit shall be extended more than once.

R 408.30908a Rescinded.

R 408.30910a Rescinded.

R 408.30912a Rescinded.

R 408.30918 Violation penalties.

Rule 918. Section 115.4 of the code is amended to read as follows:

115.4 Violation penalties. A person that violates a provision of the code, that fails to conform with any of the requirements of the code, or that erects, installs, alters, or repairs mechanical 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 is subject to review, which may result in licensing action pursuant to the skilled trades regulation act, 2016 PA 407, MCL 339.5101 to 339.6133.

R 408.30923a Equipment installation.

Rule 923a. Section 301.10.1 is added to the code and section 309.1 of the code is amended to read as follows:

301.10.1. Electrical disconnect. The mechanical contractor shall ensure that all equipment is equipped with an externally accessible electrical disconnect switch on, or within 6 feet of, the equipment. The disconnect shall be permanently identified.

309.1. Occupiable space heating systems. Interior spaces intended for human occupancy shall be provided with heating facilities capable of maintaining a minimum interior room temperature of 68 degrees Fahrenheit, 20 degrees Celsius, at a point 3 feet, 914 millimeters, above the floor and 2 feet, 609.6 millimeters, from exterior walls at the required design temperature. The installation of portable space heaters shall not be used to comply with this section.

Exception:

1. Interior spaces where the primary purpose is not associated with human comfort.
2. Interior, seasonal spaces that are unoccupied during cold weather months, including restrooms, shower buildings, day use restrooms, concession stands, press boxes, ticket booths and locker rooms.
3. Group F, H, S or U occupancies.

R 408.30927a Rescinded.

R 408.30928a Solid fuel burning equipment.

Rule 928a. Section 901.5 is added to the code to read as follows:

901.5 Solid fuel burning equipment. Solid fuel burning equipment shall be listed and labeled in accordance with section 304.1 of the code and installed in accordance with the manufacturer's instructions and NFPA 211-2019 requirements.

R 408.30935a Performance test.

Rule 935a. Section 507.6.1.1 is added to the code to read as follows:

507.6.1.1 Capture and containment procedure. The field test identified in section 507.6.1 of the code shall be conducted in accordance with the smoke testing procedures established by the bureau of construction codes, which are available at no cost from the bureau of

construction code's website at www.michigan.gov/bcc, or from the Michigan Department of Licensing and Regulatory Affairs, Bureau of Construction Codes, 611 West Ottawa Street, First Floor Ottawa Building, Lansing, Michigan 48933.

R 408.30936a Scope of article.

Rule 936a. Section 1001.2 is added to the to read as follows:

1001.2. Boilers. In addition to the other provisions of the code, this article governs the installation, alteration, and repair of water heaters and boilers. The installation of boilers shall comply with the provisions of this code and the skilled trades regulation act, 2016 PA407, MCL 339.5101 to 339.6133.

R 408.30945a Ventilation; exhaust.

Rule 945a. Sections 501.3, 504.4, and 504.9.2, of the code are amended to read as follows:

501.3 Exhaust discharge. The air removed by every mechanical exhaust system shall be discharged outdoors at a point where it will not cause a public nuisance and not less than the distances specified in section 501.3.1 of the code. The air shall be discharged to a location from which it cannot again be readily drawn in by a ventilating system. Air shall not be exhausted into an attic or a crawl space, be directed onto walkways, or terminate within 3 feet of a ventilated section in a soffit.

Exceptions:

1. Whole-house ventilation-type attic fans shall be permitted to discharge into the attic space of dwelling units that have private attics.
2. Commercial cooking recirculating systems.
3. When installed in accordance with the manufacturer's instructions and when mechanical or natural ventilation is otherwise provided in accordance with chapter 4 of the code, listed and labeled domestic ductless range hoods shall not be required to discharge to the outdoors.

504.4 Exhaust installation. Dryer exhaust ducts for clothes dryers shall terminate on the outside of the building, shall not terminate within 3 feet of a ventilated section in a soffit, and shall be equipped with a back-draft damper. Screens shall not be installed at the duct termination. Ducts shall not be connected or installed with sheet metal screws or other fasteners that will obstruct the exhaust flow. Clothes dryer exhaust ducts shall not be connected to a vent connector, vent, or chimney. Clothes dryer exhaust ducts shall not extend into or pass through ducts or plenums.

504.9.2 Duct installation. Dryer exhaust ducts shall be supported at 4-foot, 1,219 millimeters, intervals and secured in place. The insert end of the duct shall extend into the adjoining duct or fitting in the direction of airflow. Ducts shall not be joined with screws or similar fasteners that protrude into the inside of the duct.

R 408.30946 Alterations and repairs.

Rule 946. Section 1001.3 is added to the code to read as follows:

1001.3. Alterations and repairs to boilers shall be in accordance with the skilled trades regulation act, 2016 PA 407, MCL 339.5101 to 339.6133.

R 408.30947a Rescinded.

R 408.30947b Refrigerants other than ammonia.

Rule 947b. Section 1101.1.1 of the code is amended to read as follows:

1101.1.1 Refrigerants other than ammonia. Refrigerant piping design and installation for systems containing a refrigerant other than ammonia, including pressure vessels and pressure relief devices, shall comply with this chapter and ASHRAE 15. System using A2L refrigerants shall comply with ASHRAE 15.

R 408.30948 Rescinded.

R 408.30995a Automatic sprinkler systems generally.

Rule 995a. Sections 1600.0, 1600.1, and 1600.2 are added to the code to read as follows:

1600.0. Automatic sprinkler systems; fire suppression systems.

1600.1 Scope. The provisions of this article provide the minimum requirements for the design and installation of automatic sprinkler systems in all occupancies, except for 1- and 2-family dwellings.

1600.2. Installations. Installations shall be in compliance with the provisions of the code. Fire suppression systems shall be in compliance with the provisions of the building code and shall be installed in accordance with the code and NFPA-13-2019 or NFPA-13D-2019 or NFPA-13R-2019, and NFPA-24-2019, and standards of the National Fire Protection Association listed in chapter 15.

R 408.30996 Process piping.

Rule 996. Sections 1700.0 and 1700.1 are added to the code to read as follows:

1700.0. Process piping.

1700.1 Scope. The provisions of this chapter provide the minimum requirements for the design and installation of process piping systems pursuant to ASME B31.3-2022.

1700.2 Process piping. Piping which is not part of a refrigeration system or part of a system designed to provide air conditioning. Process piping includes pipes which transfer chemicals and other fluids, gases, or vapors for systems other than air conditioning systems as covered by the Michigan mechanical code.