

# Common Sense Initiative

Mike DeWine, Governor Jon Husted, Lt. Governor Joseph Baker, Director

#### **Business Impact Analysis**

Agency, Board, or Commission Name:	Board of Building Standards
Rule Contact Name and Contact Information:	
Regina Hanshaw, 614-728-1841, rhar	nshaw@com.state.oh.us
Regulation/Package Title (a general description	on of the rules' substantive content):
Ohio Plumbing Code Update	
Rule Number(s): <u>Rescind all existing rules in 4101:3-2-01, 4101:3-3-01, 4101:3-4-01, 4101:3-4-01, 4101:3-11-01, 4104-11-01, 4</u>	3-5-01, 4101:3-6-01, 4101:3-7-01, 4101: <mark>3-8-01,</mark>
Date of Submission for CSI Review:4  Public Comment Period End Date:5/	
Rule Type/Number of Rules:	10,20
New/_15_rules	No Change/ rules (FYR?)
Amended/ rules (FYR?)	Rescinded/ <u>15</u> rules (FYR? <u>X</u> )

The Common Sense Initiative is established in R.C. 107.61 to eliminate excessive and duplicative rules and regulations that stand in the way of job creation. Under the Common Sense Initiative, agencies must balance the critical objectives of regulations that have an adverse impact on business with the costs of compliance by the regulated parties. Agencies should promote transparency, responsiveness, predictability, and flexibility while developing

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regulations that are fair and easy to follow. Agencies should prioritize compliance over punishment, and to that end, should utilize plain language in the development of regulations.

#### **Reason for Submission**

1. R.C. 106.03 and 106.031 require agencies, when reviewing a rule, to determine whether the rule has an adverse impact on businesses as defined by R.C. 107.52. If the agency determines that it does, it must complete a business impact analysis and submit the rule for CSI review.

Which adverse impact(s) to businesses has the agency determined the rule(s) create?

The rule(s):

a.	⊠ oper	Requires a license, permit, or any other prior authorization to engage in or ate a line of business.
b.		Imposes a criminal penalty, a civil penalty, or another sanction, or creates a e of action for failure to comply with its terms.

c.		Requires specific expenditures or the report of information as a condition of
	com	pliance.

d. 

Is likely to directly reduce the revenue or increase the expenses of the lines of business to which it will apply or applies.

#### **Regulatory Intent**

2. Please briefly describe the draft regulation in plain language.

Please include the key provisions of the regulation as well as any proposed amendments.

The Ohio Board of Building Standards (Board) proposes to rescind all existing rules in 4101:3 and adopt new Ohio Administrative Code (OAC) rules to incorporate the 2021 International Plumbing Code by refence with Ohio amendments as follows:

**4101:3-1-01** This proposed rule regulates the administration of the plumbing code by certified building departments and local health departments.

**4101:3-2-01** This proposed rule sets forth the definitions of terms used in rules 4101:3-1-01 through 4101:3-15-01

**4101:3-3-01** This proposed rule contains the general requirements for the installation of plumbing systems for toilet rooms.

**4101:3-4-01** This proposed rule regulates number and installation of plumbing fixtures.

**4101:3-5-01** This proposed rule regulates design and installation of water heaters.

**4101:3-6-01** This proposed rule sets forth the requirements for water supply systems within a building.

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**4101:3-7-01** This proposed rule regulates the design and installation of sanitary drainage piping systems within a building.

**4101:3-8-01** This proposed rule regulates drainage installations requiring an indirect connection to the sanitary drainage.

**4101:3-9-01** This proposed rule contains requirements for vents and venting of plumbing systems.

**4101:3-10-01** This proposed rule regulates installation of plumbing system traps, interceptors and separators.

**4101:3-11-01** This proposed rule sets forth the requirements for storm drainage.

**4101:3-12-01** This proposed rule regulates the design and installation of special piping and storage systems including medical gas.

**4101:3-13-01** This proposed rule references the nonpotable water systems requirements regulated by the Ohio Department of Health.

**4101:3-14-01** This proposed rule references the subsurface landscape irrigation system requirements regulated by the Ohio Department of Health.

**4101:3-15-01** This proposed rule lists technical standards referenced in rules 4101:3-1 through 4101:3-14

Significant changes to these rules are listed in attached Exhibit A.

3. Please list the Ohio statute(s) that authorize the agency, board or commission to adopt the rule(s) and the statute(s) that amplify that authority.

Revised Code § 3781.10: <a href="http://codes.ohio.gov/orc/3781.10">http://codes.ohio.gov/orc/3781.10</a>
Revised Code § 3781.11: <a href="http://codes.ohio.gov/orc/3781.11">http://codes.ohio.gov/orc/3781.11</a>
Revised Code § 3791.04: <a href="http://codes.ohio.gov/orc/3791.04v1">http://codes.ohio.gov/orc/3791.04v1</a>

4. Does the regulation implement a federal requirement? Is the proposed regulation being adopted or amended to enable the state to obtain or maintain approval to administer and enforce a federal law or to participate in a federal program? If yes, please briefly explain the source and substance of the federal requirement.

No – See Ohio Building Code Update BIA

5. If the regulation implements a federal requirement, but includes provisions not specifically required by the federal government, please explain the rationale for exceeding the federal requirement.

Not applicable

6. What is the public purpose for this regulation (i.e., why does the Agency feel that there needs to be any regulation in this area at all)?

Revised Code § 3781.10 directs the Board to "formulate and adopt rules governing the erection, construction, repair, alteration and maintenance of all buildings specified in section 3781.06 of the Revised Code..." Additionally, Revised Code 3781.06 provides:

Any building that may be used as a place of resort, assembly, education, entertainment, lodging, dwelling, trade, manufacture, repair, storage, traffic, or occupancy by the public, any residential building, and all other buildings or parts and appurtenances of those buildings erected within this state, shall be so constructed, erected, equipped, and maintained that they shall be safe and sanitary for their intended use and occupancy.

This statute defines safe and sanitary as follows:

"Safe," with respect to a building, means it is free from danger or hazard to the life, safety, health, or welfare of persons occupying or frequenting it, or of the public and from danger of settlement, movement, disintegration, or collapse, whether such danger arises from the methods or materials of its construction or from equipment installed therein, for the purpose of lighting, heating, the transmission or utilization of electric current, or from its location or otherwise.

"Sanitary," with respect to a building, means it is free from danger or hazard to the health of persons occupying or frequenting it or to that of the public, if such danger arises from the method or materials of its construction or from any equipment installed therein, for the purpose of lighting, heating, ventilating, or plumbing.

The Ohio Building Code (OBC) sets forth the construction standards for nonresidential buildings in the State of Ohio to ensure that they are safe and sanitary. Additionally, Revised Code § 3781.01 provides that local governments may not adopt regulations that that conflict with the Board's rules to facilitate the uniform application of the standards.

Revised Code 3781.11 lists conditions that rules of the Board must address, including:

(1) For nonresidential buildings, provide uniform minimum standards and requirements, and for residential buildings, provide standards and requirements that are uniform throughout the state, for construction and construction materials, including construction of industrialized units, to make residential and nonresidential buildings safe and sanitary as defined in section 3781.06 of the Revised Code;

- (2) Formulate such standards and requirements, so far as may be practicable, in terms of performance objectives, so as to make adequate performance for the use intended the test of acceptability;
- (3) Permit, to the fullest extent feasible, the use of materials and technical methods, devices, and improvements, including the use of industrialized units which tend to reduce the cost of construction and erection without affecting minimum requirements for the health, safety, and security of the occupants or users of buildings or industrialized units and without preferential treatment of types or classes of materials or products or methods of construction;
- (4) Encourage, so far as may be practicable, the standardization of construction practices, methods, equipment, material, and techniques, including methods employed to produce industrialized units;

## 7. How will the Agency measure the success of this regulation in terms of outputs and/or outcomes?

The enforcement of these rules will be implemented by certified township, city, and county building departments. Rule 4101:1-1-01 lays out the administrative procedures certified building departments must follow to implement the substantive requirements of these rules to determine compliance. These provisions require a builder or owner to make application to a building department to obtain an approval to build (permit). As part of this application the owner must submit sufficient information and/or construction documents for the building official/plans examiner to determine whether the proposed work complies with the code. After the builder or owner obtains the approval (permit), construction may commence and the building department inspectors will inspect the construction to ensure that the work conforms with the original approval. Rule 4101:1-1-01 § 105.3 provides that in the absence of fraud or a serious safety or sanitation hazard, any non-residential structure built in accordance with approved plans shall be conclusively presumed to comply with these rules. The Board requires that certified nonresidential building departments submit an annual yearly operational report which lists the following information: current employees and their certifications, total number of permits issued during the year for each type of occupancy, total number of inspections made, the total value of construction, and the total number of appeals of the code requested by a builder or owner during the year.

8. Are any of the proposed rules contained in this rule package being submitted pursuant to R.C. 101.352, 101.353, 106.032, 121.93, or 121.931?

If yes, please specify the rule number(s), the specific R.C. section requiring this submission, and a detailed explanation.

Not applicable.

**Development of the Regulation** 

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# 9. Please list the stakeholders included by the Agency in the development or initial review of the draft regulation.

If applicable, please include the date and medium by which the stakeholders were initially contacted.

The Board maintains a stakeholder distribution including building department personnel, contractors, designers and professional associations. The stakeholder list is available upon request.

On March 2, 2023, the Board sent an email to all agency stakeholders informing them of a scheduled stakeholder meeting on March 22, 2023 to hear comments and respond to questions on these rules. The notice summarized the proposed rules and provided other information, background and resources for stakeholder review and also informed stakeholders that if they could not attend the stakeholder meeting, they could submit questions or comments via email: <a href="Proposed 2024 Ohio Building">Proposed 2024 Ohio Building</a>, <a href="Mechanical & Plumbing Code Rules | Ohio Department of Commerce">On March 22</a>, 2023, the Board conducted a stakeholder meeting on the proposed rules at 1:00 PM and the following individuals attended: In-Person:Chris Randles, Summit County, David Molnar, OBOA/Richland County, Charles Huber, City of Lakewood, Ron Bartley, Nicholas Montan, Tuscarawas County, Lisa Reiheld, ICC, Tracie Boyd, SFM, Kim Boulter, Changing Spaces Ohio, Courtney Hines, Delaware Cty Board of DD, Jennifer Corcoran Changing Spaces Ohio, Matthew Helton, Changing Spaces Ohio, Chase Waits, DCBDD, Lane Beougher, OFCC and Kurt Beres, MA Design; Virtual: Christopher Parmelee, Jarrod Clay, Robert Glass, Joseph R. Briscar, Todd Hager, Duane Matlack, Troy Warnock, Jeremy M. Williams, Tim Thompson, Steve Risser and Brady Campbell.

# 10. What input was provided by the stakeholders, and how did that input affect the draft regulation being proposed by the Agency?

Summaries of written comments received with Board action on the comments and stakeholder meeting discussion in response to the March 2, 2023 proposed code update announcement are attached as Exhibit B.

# 11. What scientific data was used to develop the rule or the measurable outcomes of the rule? How does this data support the regulation being proposed?

The proposed rules are based on the 2021 International Plumbing Code (IBC) promulgated and amended by the International Code Council (ICC). The model codes developed by ICC are updated every three years through a process that incorporates petitioning, public hearings and voting by ICC members. The ICC Committees that oversaw the development of the different provisions 2021 IPC included code officials, engineers, contractors and other professional organizations.

When a petition to amend the model code is submitted, the proponent of the change must submit the proposed language of the amendment, the reason for the amendment including

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scientific data when applicable, and the cost impact of the amendment. All submitted petitions are then published prior to initial code development hearings on the petitions. Interested persons may review the proposed changes and attend the code development hearing and provide comments. A report then is published on the public hearings for review and then final action is taken on the proposed changes at final action hearings. All successful changes are incorporated into the next edition of the model code.

Upon publication the Board's code committee reviews each substantive change included in the newest edition of the code and determines whether to recommend the change to the Board for adoption. The Board last fully updated the OPC on November 1, 2017.

12. What alternative regulations (or specific provisions within the regulation) did the Agency consider, and why did it determine that these alternatives were not appropriate? If none, why didn't the Agency consider regulatory alternatives? Alternative regulations may include performance-based regulations, which define the required outcome, but do not dictate the process the regulated stakeholders must use to comply.

See question 11.

13. What measures did the Agency take to ensure that this regulation does not duplicate an existing Ohio regulation?

Editorial changes are routinely made to the rules to provide consistency with the Ohio Revised Code and other Board and agencies' rules. Additionally, RC § 3781.10 gives the Board sole authority to adopt rules which regulate the erection, construction, repair, alteration, and maintenance of all buildings or classes of buildings specified RC 3781.06 including residential and non-residential buildings.

14. Please describe the Agency's plan for implementation of the regulation, including any measures to ensure that the regulation is applied consistently and predictably for the regulated community.

For these rules to be enforced by a local government, its building department must be certified by the Board. The Board also certifies the personnel who work within these departments to ensure only qualified personnel are enforcing the Board's rules. Certified personnel must complete continuing education to maintain their certifications and continue to be authorized to enforce these rules. The Board has authority to suspend or revoke certifications for failure to properly enforce the rules. Also, the Board has two staff members dedicated to responding to complaints by persons affected by the Board rules. This program helps promote consistent and predictable application of the Board rules.

#### **Adverse Impact to Business**

15. Provide a summary of the estimated cost of compliance with the rule(s). Specifically, please do the following:

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- a. Identify the scope of the impacted business community, and
  - Building owners
  - Design Professionals
  - Contractors
  - Building Department Personnel
- b. Quantify and identify the nature of all adverse impact (e.g., fees, fines, employer time for compliance, etc.).

The adverse impact can be quantified in terms of dollars, hours to comply, or other factors; and may be estimated for the entire regulated population or for a representative business. Please include the source for your information/estimated impact.

- Obtaining updated rules as published as the Ohio Plumbing Code
- Becoming familiar with the changes through research and training
- Increased cost of construction due to changes that require different construction methods/materials/products or increased stringency of construction standards.

Due to the variance in allowed building designs, it is difficult to ascertain, in dollars, a cost increase/decrease in the design cost of a building as a result of the proposed code update. However, as discussed in Question 11 above, when a code change proponent submits a petition to ICC to amend the model code an estimated cost impact of the proposal is included. Of the significant changes, the following sections included in the proposed rules were noted by the proponent as having a cost increase in construction:

606.1 Location of full-open valves - adds location 2.1 which requires separate water supply valve each tenant in a multiple tenant building

609.2.1 Tracer wire for nonmetallic piping - adds a requirement for a tracer wire for nonmetallic piping

16. Are there any proposed changes to the rules that will <u>reduce</u> a regulatory burden imposed on the business community? Please identify. (Reductions in regulatory burden may include streamlining reporting processes, simplifying rules to improve readability, eliminating requirements, reducing compliance time or fees, or other related factors).

The proposed rules now incorporate unchanged model code by reference rather than duplicating the language in the administrative code reducing total number of words codified by approximately: 90% from the Ohio Building Code; 85% from the Ohio Mechanical Code; and 75% from the Ohio Plumbing Code. Additionally, the proposed rules eliminates about 10,000 regulatory restrictions from the current Ohio Building Code as defined by RC 121.95, about 2,500 regulatory restrictions from the current Ohio Mechanical Code, and about 1,800 regulatory restrictions from the current Ohio Plumbing Code as defined in RC 121.95.

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Due to the variance in allowed building designs, it is difficult to ascertain, in dollars, a cost increase/decrease in the design cost of a building as a result of the proposed code update. However, as discussed in Question 11 above, when a code change proponent submits a petition to ICC to amend the model code an estimated cost impact of the proposal is included. Of the significant changes, the following sections included in the proposed rules were noted by the proponent as having a cost *decrease* in construction:

- 403.1.1 Fixture calculations adds exceptions 2 and 3 which provide design flexibility by allowing multi-user all-inclusive facilities and allowing single user toilet and bathing room fixtures to count toward the total number of required fixtures
- 403.1.2 Single-user toilet and bathing room fixtures allows single user toilets and bathing room fixtures to count toward the required number of total fixtures
- 403.2 Separate facilities adds exceptions 5 and 6 which provide design flexibility by allowing multiuser all-inclusive facilities and allowing single user toilet and bathing room fixtures to count toward the total number of required fixtures (not adopted in Ohio for use in E occupancies)
- 403.3.3 Location of toilet facilities in occupancies other than malls new exception intended to address self-storage Group S occupancies
- 403.6 Service sink location new section which allows service sinks to be within 300 ft of a tenant space
- 407.2 Bathtub waste outlets and overflows makes tub overflows optional because not all tubs have an overflow option
- 606.6 Water supply system test deletes section 606.7 requiring labeling of water distribution piping and direction of flow
- 607.1.1 Temperature limiting means allows the water heater to control the temperature when the water heater complies with ASSE 1082 or 1085
- 607.1.2 Tempered water temperature control breaks out the paragraph into a list and allows the water heater to control the temperature when the water heater complies with ASSE 1082 or 1085
- 1002.4.1 Trap seal protection adds a new section allowing a fixture drain to prime a floor drain
- 1002.4.1.5 Fixture drain connection for trap priming adds a new section allowing a fixture drain to prime a floor drain
- 1102.6 Roof drains adds a new ASPE/IAPMO standard for roof drains

# 17. Why did the Agency determine that the regulatory intent justifies the adverse impact to the regulated business community?

The majority of the provisions noted above as having an increased cost impact enhance life safety and/or accessibility provisions of the code. Additionally, other changes included in the rule package will decrease cost of construction, offer regulatory alternatives, and recognize new technologies and materials.

#### **Regulatory Flexibility**

# 18. Does the regulation provide any exemptions or alternative means of compliance for small businesses? Please explain.

The rules do not have special exemptions or alternative means of compliance specifically for small business. The OBC requires a building official to issue an adjudication order to an owner when the design or construction of a building does not comply with the OBC. The adjudication order must comply with Revised Code Chapter 119 and give the owner an opportunity to appeal. This mechanism is often utilized by an owner voluntarily to obtain a variance from the requirements. Variance requests are heard by either the Ohio Board of Building Appeals or a certified local board of building appeals.

Also, the OBC permits alternative engineered designs prepared by a registered design professional to not strictly comply with the prescriptive requirements of the rules. To obtain approvals based on alternative engineered designs, the design professional must submit sufficient technical information to demonstrate that the performance meets the intent of the rules.

# 19. How will the agency apply Ohio Revised Code section 119.14 (waiver of fines and penalties for paperwork violations and first-time offenders) into implementation of the regulation?

Revised Code § 3781.102 does not authorize the Board to set the fees and/or penalties assessed by local certified building departments in connection with the enforcement of these rules. Compliance with the rules is accomplished through construction conforming to the certificate of plan approval (permit). Therefore, there are no potential paperwork violations of these rules.

# 20. What resources are available to assist small businesses with compliance of the regulation?

As these proposed rules updates the Ohio Building Code to a new model code edition, the Board offers training and resources to building department personnel to prepare them to enforce the new codes. These resources are paid for by assessment fees collected by certified building departments pursuant to RC 3781.102 on behalf of the Board to be used exclusively

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for (1) the operating costs of the Board, (2) providing services, including educational programs, for building departments certified by the Board, and (3) paying the expenses of the Residential Construction Advisory Committee.

Additionally, the Board's technical staff spends approximately 25% of their time responding to questions on the building codes and educating design professionals, contractors, the public, and code officials of the intent of the Board's rules assisting all parties in compliance.

#### Exhibit A

Ohio Administrative Code Rule Number	2024 OPC Section	Source of change (2018 IPC, 2021 IPC, or BBS)	Description of Change
4101:3-1-01	101.1	BBS	Formal adoption by reference of the
			International Plumbing Code (IPC)
	101.1.1	BBS	"Rules of construction" are universal edits of the IPC
	101.3.1	BBS	Identifies provisions of the plumbing
			code that are enforced by building
			official – Consolidated from multiple
			sections of the OPC
	101.3.2	BBS	Identifies who enforces medical gas
4101:3-2-01	Accessible	2018	Added definition
	Building	BBS	Replaced definition
	Copper Alloy	2021	Added definition
	Existing installation	BBS	Replaced definition
	Full Open Valve	2018	Added definition
	Private	2021 and BBS	ICC Modified definition and
			BBS replaced definition
	Private residential swimming pool	BBS	Added definition
	Press Connect Joint	2018	Added definition
	Public or	2021 and BBS	ICC Modified definition and
	Public Utilization		BBS replaced definition
	Public Swimming Pool	2018 and BBS	ICC Added definition and
			BBS replaced definition
	Push-fit fitting	2021	Added definition
	Registered design	BBS	Modified definition – includes landscape
	professional		architects
	Swimming Pool	2018 and BBS	ICC Modified definition and
			BBS further modified
	Water Dispenser	2021 and BBS	ICC Modified definition and
			BBS retained current definition
4101:3-3-01	301.3	BBS	Kept ICC model code in charging
			paragraph. Kept Ohio modifications to
			exception #1 and relocated Ohio
			exception #2 to OPC Section 802.1.8
	303.5	2018 and BBS	ICC Added - Third-party listing of soil
			pipe and BBS modified with Ohio terms
	305.1	2018	Clarified - Corrosion protection of
			metallic pipe
	305.3	BBS	Modified section with petitioner language for pipes through foundations
	305.6	2018	Modified - Protection against physical
		2010	damage
	307.7	BBS	Relocated provision to OPC chapter 1
	308.6	2018	Clarified - Sway bracing for drainpipes
	308.9	2021	Modified - Bundled hot water piping
			insulation

	308.10	2018	Added - Thermal expansion tank
			support
	309.1	BBS	Kept IPC model code – No modifications
	309.3	BBS	Kept IPC model code – No modifications
	310.3	BBS	Relocated provision to OPC chapter 1
	312	BBS	Most of the Ohio changes to the testing
			and inspections section have remained
			with the exception of sections 312.10.1,
			10.2, 312.11 and 312.12 (see below)
	312.10.1	BBS	Kept IPC model code – No modifications
	312.10.2	BBS	Kept IPC model code – No modifications
	312.11	BBS	Delete unique Ohio section – Important
			for owners but not within the OPC scope
	312.12	BBS	Delete unique Ohio section –
			Duplication of chapter 1 requirements.
	314.2.3.3	2021	Added – identification of concealed
			condensate piping as primary or
			secondary
	314.3	BBS	Relocated provision to OPC chapter 1
	317	BBS	Replace entire section with general
			reference directing owners to comply
			with DIC rules for submission (RC
			§4104.44)
			3.25,
4101:3-4-01	Table 403.1	2018	Modified - Added fixtures for a gaming
			area
			Modified - Deleted Group classification
			column
			Modified - Added Note f for swimming
			pool fixture quantities.
		BBS	Kept model code values and column
			headings – Ohio modifications moved
			footnote f from "outdoor sporting
			events and activities" description cell to
			"assembly" classification cell as well as
			deleted current Ohio footnotes f and g
			as redundant with Sections 403.3 and
			424.2
	403.1.1	2021	Modified – Added 2 exceptions to
			address fixture contribution from multi-
			user and single-user facilities serving all
			genders to the overall count required by
			Table 403.1
		2018	Modified - Signage for single user toilet
			room
	403.1.2	2021	Clarified – Fixture count contribution
			from single user toilet rooms
	403.1.3	2018	Added - Lavatories distribution
	703.1.3	2010	proportionate to water closets
1			proportionate to water closets

403.2	2018	Modified – Added small business
403.2	2018	
	2021	exception
	2021	Modified – Added multi-user, multi-
	DDC	gender toilet room design exceptions
	BBS	Modified – Added Group E limitation for
100.0	2010	separate facilities
403.3	2018	Clarified - Public/Employee toilet facility
		simplification
	BBS	Modified – Removed attendant
		condition. All parking garages are
		exempt
403.3.1	2021	Clarified – Remove accessible route
		duplication
403.3.3	2021	Modified – Added exception for distance
		to toilet in Group S
403.5	2021	Clarified – Remove accessible route
		duplication
403.6	2021	Added – Service sink location limits
403.7	BBS	Relocated provision to OPC chapter 1
404.3	BBS	Relocated provision to OPC chapter 1
405.3.1	2018	Clarified - Clearance to obstruction
405.3.4	BBS	Modified – Added requirement for
		water closet compartment in multi-user,
		all gender toilet rooms
405.3.5	2018	Clarified – Minimum distance between
		urinal partitions
405.4.3	2021	Modification – Added new standard for
		water closet carriers
405.5	2018	Added – Standard for pumped waste
		fixtures
407.2	2021	Modified – Bathtub overflow optional
409.1	2018	Modified – Added standard for
		residential dishwashing machines NSF
		184
409.4	2018	Modified – Waste connection
		requirement for residential dishwasher
		relocated from 802.1.6 and language
		revised for clarity
410.3.2	2021	Added – Quantity of drinking fountains
		used while standing v. while seated
410.4	2021	Clarified – Minimum required before
		substitution of dispensers for fountains
	BBS	Retained Ohio language for water
		dispenser substitution of drinking
		fountains
411.3	2018	Added – Temperature mixing for
		emergency shower/eyewash
	2021	Modified – Control of temperature
		where shower/eyewash has direct
		supply from water heater
1	1	1- 1- 1

	412	2018	Relocated section 424 to 412
	412.3	2021	Modified – Lower flow shower heads
	412.4		must be compatible with mixing valve
	412.5	2021	Modified – Added methods of
			temperature limiting control for
			bathtubs
	412.7	2018	Added – Flow limiting device as part of
			temperature limiting control. Not a
			substitute for temperature limiting
			valves per 412.3 and 412.5
	412.10	2021	Modified – Added methods for
			temperature limiting control for head
			shampoo sinks.
	412.11	2021	Added – New text and standard for pre-
			rinse spray valves used in commercial
			food prep
	414	2018	Relocated section 427 to 414
	415	2018	Relocated section 425 to 415
	416	2018	Relocated section 413 to 416
	416.1	2021	Modified – New standard for
			commercial food waste disposers
	417	2018	Relocated section 414 to 417
	418	2018	Relocated section 415 to 418
	419	2018	Relocated section 416 to 419
	419.1	2021	Modified – Clarified impact on fixture
			count where a group wash fixture is
			used.
	419.3	2021	Modified – Included group wash fixtures
			for minimum waste outlet size.
	419.5	2021	Modified – Deleted CSA B125.3 standard
			as acceptable temperature limiting
			device for public handwashing – part of
			ASSE 1070
	420	2018	Relocated section 426 to 420
	421	2018	Relocated section 417 to 421
	421.1	2021	Modified – Added new standards for
			different types of prefab showers
	421.3.1	2021	Added – Standard for waste fittings that
	165		drain a shower.
	422	2018	Deleted entire section for health care
			fixtures and equipment. Relocated
	122.5	2001	section 418 to 422
	423.3	2021	Modified – Replaced CSA standard with
			ASSE 1082 standard for footbaths and
	434		pedicure baths
	424		Relocated section 419 to 424
	425		Relocated section 420 to 425
4404.0.7.01	426	2006	Relocated section 421 to 426
4101:3-5-01	501.2	2021	Clarified – Align code language with
			language of standard

	502.1	2018	Modified – Added solar thermal water
	502.1	2010	
			heating systems and compliance with
	502.4.4	DDC .	mechanical code and ICC 900 standard.
	502.1.1	BBS	Deleted Ohio exception. This is part of
	504.6	2010	the listing
	504.6	2018	Modified – T & P discharge piping
			minimum size where insert fitting are
			used.
	504.7	2018	Modified – Expanded the types of materials for water heater drain pan
4101:3-6-01	602.3	BBS	Delete all of section 602.3. This work is
			regulated through ODH rules for private
			water supply.
	602.3.1	2018	Modified – Added standard for water
			well construction that is not otherwise
			regulated. This change is moot.
	602.3.5	2021	Modified – Added NSF standard for
	00000		potable water pumps. This change is
			moot.
	603.3	BBS	Relocated provision to OPC chapter 1
	605.2	555	Returned to model code organization of
	003.2		section. Separate requirements for
			water supply in general from
		605.2.1 BBS	requirements for drinking water supply
			specifically.
	605.2.1		Relocated unique Ohio exceptions to
	003.2.1		605.2.1 (which was previously deleted)
	605.11	2018	Deleted Section 605.11 Brass. Brass is
	003.11		one type of copper alloy. Subsequent
			sections renumbered
	605.12.3		Modified – Solder and flux used in
	003.12.3	2021	drinking water systems must comply
	605.13.6		with NSF 61 standard
	605.13.7		Clarified – where push-fit type joints are
	605.14.4	2018	acceptable
	605.16.3		acceptable
	606.1	2021	Modified – Added location #2.1 for
			water shut-off at each tenant in multi-
			tenant buildings other than a dwelling
		BBS	Retains Ohio modification for location
			#4 at the base of every water riser.
	606.7	2021	Deleted the labeling of water
			distribution pipes where bundled.
	607.1.1		Modified - Expands means and
		2021	standards for temperature limiting and
	607.1.2	2021	tempered water control. Revised the
			format of 607.1.2.
	607.3	2018	Modified – Allows other means of
			pressure control in a hot water system
			beyond a thermal expansion tank only
<b>.</b>	,	,	•

	608.3	_	Modification – Added 608.4 and
	เ ทบช.4		
	333	2010	extracted requirement from 608.3 to
ļ		2018	clarify backflow protection. All
			subsequent subsections are
ļ			renumbered
	608.12	2018	Modified – Renumbered and added
	(formerly 608.11)		compliance with NSF 61 standard for
ļ			interior of tanks in contact with potable
!			water.
	608.15.2.1	2021	Modified – Drainage for backflow
ļ	(formerly 608.14.2.1)		preventer discharge must accommodate
ļ	(101111611) 000.1 1.2.1)		max flow rate per manufacturer specs
	608.17.1	2018	Modified – Renumbered and
ļ		2010	
	(formerly 608.16.1)		reorganized sections to clarify backflow
	608.17.1.1		requirements used with carbonated
			beverage machines from requirements
	608.17.1.2		used with coffee and non-carbonated
			beverage machines (formerly 608.16.10)
	608.17.2	2021	Modified – Added ASSE 1081 standard
	(formerly 608.16.2)		for backflow requirements used with
			low hazard boiler
	608.17.10	2018	Added – Backflow protection
			requirements for humidifiers
	609.1	2018	Modified – Replaced outdated care
	003.1	2010	facility terminology with current terms
ļ	609.2	2021	Modified – Replaced terminology and
!	609.2	2021	•
!			expanded on requirements for a
ļ			redundant water service Grp I-2, Cond 2
ļ	609.2.1	2021	Added – Requirement for tracer wire on
ļ			water service for Group I-2, Cond 2
ļ	610.1	BBS & Petition	Added – Exception that outlines
ļ		#23-01	disinfection process for safe potable
			water in new plumbing systems of
			dwellings
	611.1	2018	Modified – Added NSF standard for
			reverse osmosis treatment unit.
4101:3-7-01	701.2	2018	Modified – Connection to sewer
.101.0 / 01	, 02.2	2010	required except for gray water systems
			(ODH rules)
		DDC	
		BBS	Modifies model code to simplify. Public
			sewer or as otherwise permitted by
		2015	OEPA or ODH.
	701.8	2018	Deleted – sanitary drainage above "food
			areas" no longer prohibited.
		BBS	Added – new section 701.8 for reuse of
			existing sanitary drain piping
!			A4 1:0: 1 0: 1 1 11 10 DD :
1	702.3	2018	Modified – Standard added for PP pipe

		BBS	Ohio continues to delete this section and Table 702.3 as outside the scope of
			the OPC
	703	BBS	Ohio continues to delete this section in
			its entirety as outside the scope of the
			OPC
	703.4	2018	Modified – Use of existing building drain
			is clarified. Change is moot.
	704.1	2018	Modified – Slope for grease laden waste minimum ¼ inch/foot (2%)
	704.2	2018	Modified – Allowable reduction in pipe
			size clarified and expanded
	705.2.4	2021	Added – Push-fit DWV fittings for ABS
	705.10.4		and PVC piping
	705.16.4	2018	Modified – Allows a solvent cement joint between drain and sewer where only one joint is needed between ABS
			and PVC.
	706.3	BBS	Added language for through wall
			drainage in response to a petition
	708.1.6	2021	Added – Removeable fixture traps are
			acceptable as cleanouts. Subsequent
			subsections in 708.1 are renumbered
	709.3	2018	Clarified – Conversion of GPM to
			drainage fixture units (DFU)
	712.3.2	2018	Modified – Limits on elevation of some
			sump pit covers
	712.4.2	2018	Modified – Limit of waste ejector solids
			reduced to ½" max.
	713	2018	Deleted – All of health care plumbing is
			deleted as outdated or superseded.
		2010	Renumber subsequent Sections
	716	2018	Modified – Pipe bursting method for
	(formerly 717)	DDC	replacement allowed for building drain
		BBS	Retains model code but modifies for use
	717	2021	with building drain only (not sewer.)
	717	2021	Added – Relining method for restoring building sewers and drains
		BBS	Modifies for use with building drain only
		555	(not sewer.) Deleted subsections (717.3,
			.3.1, .4, .5, .6, .8 and .10) are
			administrative or manufacturer's
			instruction content.
	718	2021	Added – Cure-in-place method for
			rehabilitation of building drain
		BBS	Deleted this section in its entirety
4101:3-8-01	801.2	2018	Modified – Added humidification
			equipment that discharges to a drain
			must be protected

	802.1	2018	Modified – Waste-water discharge from humidification equipment must be
			indirectly connected to sanitary drain
	802.1.6	2018	Deleted – Domestic dishwashing
			machines. Renumber subsequent sub
			sections.
	802.1.7	Petition #18-06	Modified to allow direct connection for
	(formerly 802.1.8)		pot, pan and utensil sinks. Clarify that
			food sinks are under 802.1.1
	802.1.8	BBS	Relocated Ohio provision from
			exception #2 under OPC Section 301.3
	*802.4	BBS – comment	*Add an exception that allows
		from Kyle Gordon	standpipes to have "access" rather than
		of Heapy Eng.	"ready access"
	802.4.3.1	2018	Added – Alternative connection of
			laundry tub/tray, without a fixture trap,
			to clothes washer standpipe
4101:3-9-01	903.1	2021	Reorganized the section for clarity
	903.1.3	2021	Added – Requirements for vent
			terminations where covered by roof-
			mounted panel (e.g. solar or PV) or an
			architectural roof element (e.g.
			decorative shroud)
	903.1.4	2021	Relocated – Requirements for sidewall
	(formerly 903.6)		vent terminals.
	915.1	2021	Modified – Food waste disposer may
			discharge into a combination waste vent
	915.2	Petition #18-05	Retained model code for combination
			waste and vent, allowing vertical pipe
			between fixture drain of floor drain and
			horizontal pipe
	918.8	2018	Modified – Limit use of AAV near air
			intakes
4101:3-10-01	1002.1	2021	Modified – Deleted existing exception
			#3 and adds new exception #4 which
			will allow direct connection of pot and
			pan sinks to a hydromechanical grease
			interceptor under certain conditions.
			Renumbered subsequent exception
		BBS & Petition	Modified – Retained model code in
		#18-04	Exception 1 and relocated distance to
			trap requirements in new subsections
	1002.1.1	BBS	Added – Relocated requirements for
			vertical distance to trap weir with an
			exception
	1002.1.2	BBS	Added – Relocated requirements for
	İ		harizantal distance to tran inlet without
			horizontal distance to trap inlet without
			exception
	1002.4.1.5	2021 & Petition	•

	*1003.3.2	2018	Modified – Prohibits a food waste
			disposer from discharging into a grease
			interceptor.
		*BBS	*Retain model code
	*1003.3.3	2018	Added – Additives to grease interceptor
			must comply with manufacturer's
			instructions and ASME A112.14.
			standard
		*BBS	*Retain model code
4101:3-11-01	1102.4	2018	Modified – Added types of pipe allowed
			for use in storm sewer.
		BBS	Deleted section and table. Model code
			change is moot
	1102.6	2021	Modified – Added testing and rating of
			roof drains in accordance with a
			standard
	1106.2.1	2021	Added – Equation to convert rainfall
			rate to GPM
	1106.5	2018	Modified – Sets a minimum size and
			location (elevation) of scuppers
4101:3-12-01	1202.1	2021	Modified – Aligned the requirement
			with the NFPA 99 standard.
	1202.2	BBS	Relocated enforcement provision to
			OPC Chapter 1.
4101:3-13-01	Chapter 13	2015	Non-potable water systems – ODH rules
4101:3-14-01	Chapter 14	2015	Subsurface graywater soil absorption
4101:3-15-01	1501.3	BBS	Updated referenced standards:
			IAPMO Z124.10
			ICC A117.1
			NFPA 37
			NFPA 70

<sup>\*</sup>Indicates a change after the stakeholder comment period

#### **Exhibit B**

2024 Ohio Plumbing Code Comments					
Commenter	Email	Code Section	Comment	Staff Comments	Code Committee Action
			O.P.C. Combination waste & vent system section 915.1		
			propose Modified food waste disposer may discharge into a		
			combination waste and vent system. Since 1998 when Ohio		
			adopted this code the combination waste & vent system		
			been working great with no problems because the type of		
			plumbing fixtures allowed on the system all water discharge		
			plumbing fixtures allowing air over water in the drain sizing		
			chart. By allowing a garbage disposer on the		
			Combination waste and vent system the solids from the	American Society of Plumbing	
			disposal will take up more of the pipe inside volume less air	Engineers (ASPE) researched	
			to vent the plumbing system . I think this will cause many	this issue and demonstrated	
			problems .	that system works when food	
				waste disposer discharges into	
Allen, Mark	mallen@phdmc.org	915.1		CW&V system	3/30 No change
				Food particles could block the	
				flow of the small openings and	
			Modified – Prohibits a food waste disposer from discharging	baffles within the	
			to a grease interceptor. This is a big mistake the current 2018	hydromechanical grease	
			O.P.C. Section 1003.3.2 allowing the food waste disposal	interceptor. Because of the	
			connect	small size of hydromechanical	
			to the grease interceptor , a solid interceptor shall separate	grease interceptors,	
			the discharge before connecting to the grease interceptor.	manufacturers of this type of	
			This installation works great! In a commercial kitchen when	interceptor state that food	
			they scape all the plates off	particles from a disposal	
			into a food waste disposal before they enter the dish washer	should not be discharged into	
			this is where all the grease drains to. This section of code	a hydromechanical	
Allen, Mark	MAllen@phdmc.org	1003.3.2	should remain the same.	interceptor.	3/30 No change