

# ANN ARBOR BUILDING BOARD OF APPEALS

## STAFF REPORT

**Meeting Date: October 17, 2024**

**Type of Request: APPEAL**

Building Board of Appeals Request **BBA24-0006** at 721 S. Forest, ANN ARBOR, MI 48104.

(Parcel Identification Number: **09-09-28-309-007**)

### DESCRIPTION AND DISCUSSION

#### Property Owners Name and Address:

Subtext Living  
3000 Locust Street  
Saint Louis, MO 63103

### BACKGROUND

The buildings at 721 S. Forest is a new mixed use occupancy consisting of A-3, R-2, B, S-2, and M. The building is 13 stories and 217 units and currently under construction. Upon review of the plumbing plans Plumbing Inspector and plan reviewer Ryan Miller Identified the issue this applicant is seeking relief from, stating "The vertical distance from the fixture outlet to the trap weir shall not exceed 24 inches (610 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 802.3.3" which is taken from Section 1002.1. the building proceeded and plumbing was installed in a manner that does not meet the minimum code requirements of section 1002.1, now the applicant is seeking relief from this requirement.

#### **Standards for Approval:**

- 1. The True intent of the code or the rules governing construction have been incorrectly interpreted.*
- 2. The provisions of the code do not apply; and*
- 3. An equal or better form of construction is proposed*

### STAFF RECOMMENDATION

Staff recommends this application be denied as it does not meet the standards for approval, the code has not been misinterpreted, the provisions of the code do apply and the proposed remedy is not equal to or better than the minimum requirements of the code. The appeal is an attempt to get relief from one code section to comply with another (relief from section 1002.1 so that section

909.2 can be met). The Code is intended to be complied with in full and does not allow one section (1002.1) to be disregarded so that the requirements of another section (909.2) complies. The plumbing system must meet all of the requirements of the Michigan Plumbing Code. The applicant is proposing an untested and noncompliant method to keep sewer gases out of the living space.

**PROPOSED MOTION**

**APPEAL GRANTED**

That in Case BBA24-0006, **the appeal of the Building Official’s decision** that the work proposed at 721 S. Forest be granted relief from Section 1002.1 of the 2018 Michigan Plumbing Code and the Building Board of Appeals **REVERSES** the Building Official’s decision for the reason(s) that *[state reason in motion]*:

- (1) The true intent of the 2018 Michigan Plumbing Code Section 1002.1 has been incorrectly interpreted by the Building Official.
  
- (2) The provisions of 2018 Michigan Plumbing Code Section 1002.1 does not apply to the construction at the above stated addresses on S. Forest.
  
- (3) The applicant has proposed an equal or better form of construction.

Stipulations – if Applicable

***Chairman to check box(es) following the vote***

Yeas:

Nays:

Absent for this vote:

\_\_\_\_\_

Date

\_\_\_\_\_

Paul Darling, Chairperson  
Building Board of Appeals

**OR**  
**APPEAL DENIED**

That in Case BBA24-0006 **the appeal of the Building Official's decision** that 721 S. Forest be granted relief from Section 1002.1 of the 2018 Michigan Plumbing Code is **DENIED** and the Building Board of Appeals **AFFIRMS** the Building Official's decision for the reason(s) that *[state reason in motion]*:

- (1) The true intent of the 2018 Michigan Plumbing Code Section 1002.1 governing the construction at the above stated addresses has been correctly interpreted by the Building Official.
  
- (2) The provisions of 2018 Michigan Building Code Section 1002.1 does apply to the construction at the above stated addresses.
  
- (3) The applicant has not proposed an equal or better form of construction.

Stipulations – if Applicable

***Chairman to check box(es) following the vote***

Yeas:

Nays:

Absent for this vote:

\_\_\_\_\_  
Date

\_\_\_\_\_  
Paul Darling, Chairperson  
Building Board of Appeals

# CHAPTER 10

## TRAPS, INTERCEPTORS AND SEPARATORS

### User note:

*About this chapter:* Chapter 10 regulates the design of fixture traps, methods for preventing evaporation of trap seals in traps and the required locations for interceptors and separators. The trap seal of a trap is an essential feature of a drainage system to prevent odors from the drainage piping from entering the building. The discharge of various processes, such as cooking and laundry, creates the need for equipment to retain detrimental greases and solids from entering the drainage systems.

### SECTION 1001 GENERAL

**1001.1 Scope.** This chapter shall govern the material and installation of traps, interceptors and separators.

### SECTION 1002 TRAP REQUIREMENTS

**1002.1 Fixture traps.** Each plumbing fixture shall be separately trapped by a liquid-seal trap, except as otherwise permitted by this code. The vertical distance from the fixture outlet to the trap weir shall not exceed 24 inches (610 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 802.3.3. 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 permitted to be installed on one trap, provided that one 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 permitted to serve as the trap for a single fixture or a combination sink of not more than three 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.

**1002.2 Design of traps.** Fixture traps shall be self-scouring. Fixture traps shall not have interior partitions, except where such traps are integral with the fixture or where such traps are constructed of an *approved* material that is resistant to corrosion and degradation. Slip joints shall be made with an *approved* elastomeric gasket and shall be installed only on the trap inlet, trap outlet and within the trap seal.

**1002.3 Prohibited traps.** The following types of traps are prohibited:

1. Traps that depend on moving parts to maintain the seal.
2. Bell traps.
3. Crown-vented traps.
4. Traps not integral with a fixture and that depend on interior partitions for the seal, except those traps constructed of an *approved* material that is resistant to corrosion and degradation.
5. "S" traps.
6. Drum traps.

**Exception:** Drum traps used as solids interceptors and drum traps serving chemical waste systems shall not be prohibited.

**1002.4 Trap seals.** Each fixture trap shall have a liquid seal of not less than 2 inches (51 mm) and not more than 4 inches (102 mm), or deeper for special designs relating to accessible fixtures.

**1002.4.1 Trap seal protection.** Trap seals of *emergency floor drain* traps and trap seals subject to evaporation shall be protected by one of the methods in Sections 1002.4.1.1 through 1002.4.1.4.

**1002.4.1.1 Potable water-supplied trap seal primer valve.** A potable water-supplied trap seal primer valve shall supply water to the trap. Water-supplied trap seal primer valves shall conform to ASSE 1018. The discharge pipe from the trap seal primer valve shall connect to the trap above the trap seal on the inlet side of the trap.

**1002.4.1.2 Reclaimed water or graywater-supplied trap seal primer valve.** A reclaimed water or graywater-supplied trap seal primer valve shall supply water to the trap. Water-supplied trap seal primer valves shall conform to ASSE 1018. The quality of reclaimed water or graywater-supplied to trap seal primer valves shall be in accordance with the requirements of the manufac-

VENTS

TABLE 906.5.1  
SIZE AND LENGTH OF SUMP VENTS

DISCHARGE CAPACITY OF PUMP (gpm)	MAXIMUM DEVELOPED LENGTH OF VENT (feet) <sup>a</sup>					
	Diameter of vent (inches)					
	1/4	1/2	2	2 1/2	3	4
10	No limit <sup>b</sup>	No limit	No limit	No limit	No limit	No limit
20	270	No limit	No limit	No limit	No limit	No limit
40	72	160	No limit	No limit	No limit	No limit
60	31	75	270	No limit	No limit	No limit
80	16	41	150	380	No limit	No limit
100	10 <sup>c</sup>	25	97	250	No limit	No limit
150	Not permitted	10 <sup>c</sup>	44	110	370	No limit
200	Not permitted	Not permitted	20	60	210	No limit
250	Not permitted	Not permitted	10	36	132	No limit
300	Not permitted	Not permitted	10 <sup>c</sup>	22	88	380
400	Not permitted	Not permitted	Not permitted	10 <sup>c</sup>	44	210
500	Not permitted	Not permitted	Not permitted	Not permitted	24	130

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 gallon per minute = 3.785 L/m.

a. Developed length plus an appropriate allowance for entrance losses and friction due to fittings, changes in direction and diameter. Suggested allowances shall be obtained from NBS Monograph 31 or other approved sources. An allowance of 50 percent of the developed length shall be assumed if a more precise value is not available.

b. Actual values greater than 500 feet.

c. Less than 10 feet.

SECTION 907  
VENTS FOR STACK OFFSETS

907.1 Vent for horizontal offset of drainage stack. Horizontal offsets of drainage stacks shall be vented where five or more branch intervals are located above the offset. The offset shall be vented by venting the upper section of the drainage stack and the lower section of the drainage stack.

907.2 Upper section. The upper section of the drainage stack shall be vented as a separate stack with a vent stack connection installed in accordance with Section 904.4. The offset shall be considered to be the base of the stack.

907.3 Lower section. The lower section of the drainage stack shall be vented by a yoke vent connecting between the offset and the next lower horizontal branch. The yoke vent connection shall be permitted to be a vertical extension of the drainage stack. The size of the yoke vent and connection shall be not less than the size required for the vent stack of the drainage stack.

SECTION 908  
RELIEF VENTS—STACKS OF MORE THAN 10 BRANCH INTERVALS

908.1 Where required. Soil and waste stacks in buildings having more than 10 branch intervals shall be provided with a relief vent at each tenth interval installed, beginning with the top floor.

908.2 Size and connection. The size of the relief vent shall be equal to the size of the vent stack to which it connects. The lower end of each relief vent shall connect to the soil or waste

stack through a wye below the horizontal branch serving the floor, and the upper end shall connect to the vent stack through a wye not less than 3 feet (914 mm) above the floor.

SECTION 909  
FIXTURE VENTS

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

R 408.30723

TABLE 909.1  
MAXIMUM DISTANCE OF FIXTURE TRAP FROM VENT

SIZE OF TRAP (inches)	SLOPE (inch per foot)	DISTANCE FROM TRAP (feet)
1/4	1/4	5
1/2	1/4	6
2	1/4	8
3	1/8	12
4	1/8	16

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm, 1 inch per foot = 83.3 mm/t

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

R 408.30725c

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