

CENTRAL IOWA CODE CONSORTIUM
 MEETING NOTICE AND AGENDA
 PLUMBING, MECHANICAL & FUEL GAS COMMITTEE
 Mac Rae Room, 1551 E M L King Jr Pkwy., Des Moines, IA 50317
 November 14th, 2018 @ 1:00PM – 4:00PM
AGENDA

- CALL TO ORDER
- ROLL CALL

MEMBER	Present	Absent
Brian Hamner		
Chuck Gassman		
Brian Rogers		
Justin Jordan		
Dennis Patrick		
Jason Merk		
Jim Sanders		

- AGENDA APPROVAL
- PUBLIC COMMENT
- APPROVE MINUTES FROM THE PREVIOUS MEETING
- AGENDA
- The IRC Committee reviewed the significant changes to the IRC regarding plumbing and would appreciate your committee’s input on the following changes:

P2602.1 – Connections on private sewage disposal (specifically – how do we currently handle private sewage connections for gray water? Other thoughts from your committee about this?)

P2903.5 – Water Hammer Arrestors (specifically – would the washing machine and dishwasher be included in “the plumbing system” thereby requiring these arrestors in almost every home?)

P3103.1 – Vent Pipe Terminations (specifically – is 2-inches of clearance adequate? How close can PV arrays be to the top of the pipe?)

- **UPC 701.2 Drainage Piping – Add exception (7) (Withdraw)**

701.2 Drainage Piping. Materials for drainage piping shall be in accordance with one of the referenced standards in Table 701.2 except that:

(7) The use of SDR 23.5 is an acceptable material for [exterior] building sewers.

The design of site utilities by SUDAS allow for PVC pipe of Schedule SDR 23.5 as a sewer material. (This would no longer be needed since these are now added to Table 701.2 as approved building sewer pipe and fittings.)

MEMBER	Motioned	2nd	YEA	NAY	ABSTAIN
Brian Hamner					
Chuck Gassman					
Brian Rogers					
Justin Jordan					
Dennis Patrick					
Jason Merk					
Jim Sanders					

- **UPC 717.1 General- Amend for sewer size.**

717.1 General. The minimum size of a building sewer shall be determined on the basis of the total number of fixture units drained by such sewer, in accordance with Table 717.1. No building sewer shall be smaller than **4" in diameter and** or the building drain.

Houses being build most often are constructed with 3 finished bathroom groups. Some builders don't rough-in a future bathroom, and with those houses would only require a 3" building drain. If a home owner were to add a bathroom to the basement the 3" building drain would need to be increased. This adds a minimal cost to the construction

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- **UPC 718.3 Protection from Damage – Insert text for sewer protection.**

718.3 Protection from Damage. No building sewer or other drainage piping or part thereof, which is constructed of materials other than those approved for use under or within a building, shall be installed under or within 2 feet (610 mm) of a building or structure, or part thereof, nor less than 1 foot (305 mm) below the surface of the ground. **Building sewers less than 42” below grade shall be cast iron pipe or be protected with an engineered system to prevent damage from freezing and frost heave.** The provisions of this subsection include structures such as porches and steps, whether covered or uncovered; breezeways; roofed porte cochere; roofed patios; carports; covered walks; covered driveways; and similar structures or appurtenances.

All PVC manufactures require their pipe to be installed below the frost line to some degree. This proposal gives the contractor or designer the ability have an engineered system to protect the PVC from the frost if they want to us PVC within the frost area instead of using Cast Iron. This proposal removes our liability and puts it on the Engineer.

MEMBER	Motioned	2nd	YEA	NAY	ABSTAIN
Brian Hamner					
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- **UPC 807.3 Domestic Dishwashing Machine – Amendment**

807.3 Domestic Dishwashing Machine. No domestic dishwashing machine shall be directly connected to a drainage system or food waste disposer without the use of an approved dishwasher air gap fitting on the discharge side of the dishwashing machine, or by looping the discharge line of the dishwasher as high as possible near the flood level of the kitchen sink where the waste disposer is connected. Listed air gaps shall be installed with the flood-level (FL) marking at or above the flood level of the sink or drainboard, whichever is higher.

This has been a State amendment for years and works to prevent water from being siphoned back into the dishwasher

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- **UPC 813.1 General- Swimming pool amendment.**

813.1 General. In other than single family dwellings and duplexes, pipes carrying wastewater from swimming pools, ~~or~~ wading pools, or hot tubs, including pool drainage, backwash from filters, water from scum gutter drains or floor drains which serve walks around pools, shall be installed as an indirect waste by an air gap. Where a the recirculation pump is used to discharge waste pool water to the drainage system, the pump discharge shall be installed as an indirect waste, with an air gap, to the sanitary sewer.

Added additional sources of types of pools, hot tubs and other drainage to the section. It removes Single family and Duplexes from having to comply, and directs the installer as to what type of sewer it needs to go to since the water is typically treated and may not be allowed to go to the storm sewer.

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- **UPC 814.5 Point of Discharge-**

814.5 Point of Discharge. Air-conditioning condensate waste pipes shall connect indirectly to a properly trapped fixture, floor drain or open sight drain, or except where permitted in Section 814.6, to the drainage system through an air gap or air break to trapped and vented receptors, dry wells, leach pits, sump pump, surface area (permission must be obtained from the building official for this point of discharge), ~~or~~ the tailpiece of plumbing fixtures or indirectly to the building storm sewer through a roof drain. A condensate drain shall be trapped in accordance with the appliance manufacturer’s instructions or as approved. Vents and traps may not be required on air conditioning condensate waste pipes.

Clarification to where air-conditioning waste can be disposed of.

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- **UPC 901.1 Applicability-**

901.1 Applicability. This chapter shall govern the materials, design, and installation of plumbing vent systems. No engineered single stack drainage system shall be allowed to be installed.

Single stack systems are engineered systems that don't meet the intent of the code. There have been installations allowed in the past and when in use cause the traps to be exposed to pressures that exceeds 1-inch water column. The designers of these systems typically increase the trap seals to 4"s due to this

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- **UPC 906.7 Frost or Snow Closure-**

906.7 Frost or Snow Closure. Where frost or snow closure is likely to occur in locations having minimum design temperature below 0°F (-17.8°C), vent terminals shall be not less than ~~2 inches (50mm)~~ 3 inches (76.2mm) in diameter, but in no event smaller than the required vent pipe. The change in diameter shall be made inside the building not less than 1 foot (305 mm) below the roof and terminate not less than 10 inches (254 mm) above the roof, or in accordance with the Authority Having Jurisdiction. Increasers shall be no longer than 30 inches in length.

This modification mirrors with the state amendments and also defines how long a increaser may be. If there is not a maximum length on an increaser it becomes hard to tell where a increaser starts and the intent of the increaser.

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- **UPC 908.2.2**

908.2.2 Size. The wet vent shall be sized based on the fixture unit discharge into the wet vent. The wet vent shall be not less than 2 inches (50 mm) in diameter for 4-6 drainage fixture units (dfu) or less, and not less than 3 inches (80 mm) in diameter for 5-7 dfu or more. The dry vent shall be sized in accordance with Table 702.1 and Table 703.2 based on the total fixture units discharging into the wet vent.

Changes the sizing of the wet vented section to mirror with the states amendment.

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- **UPC Table 1002.2-**

**TABLE 1002.2
HORIZONTAL LENGTHS OF TRAP ARMS
(EXCEPT FOR WATER CLOSETS AND SIMILAR FIXTURES)^{1, 2}**

TRAP ARM PIPE DIAMETER (inches)	DISTANCE TRAP TO VENT MINIMUM (inches)	LENGTH MAXIMUM (inches)
1 ¼	2 ½	30 60
1 ½	3	42 72
2	4	60 96
3	6	72 144
4	8	120 144
Exceeding 4	2 x Diameter	120 144

For SI units: 1 inch = 25.4 mm

Notes:

1 Maintain 1/4 inch per foot slope (20.8 mm/m).

2 The developed length between the trap of a water closet or similar fixture (measured from the top of the closet flange to the inner edge of the vent) and its vent shall not exceed 6 feet (1829 mm).

To mirror with the state amendment.

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• **UPC 1014.1 General- insert at the end of the code section**

1014.1 General. Where it is determined..... Notwithstanding provisions of section 1014.1, regulations of Fat Oil and Grease (FOG) and sizing of FOG removal devices where connected to Wastewater Reclamation Authority (WRA) system shall be in accordance with WRA regulations for the regulations of industrial wastewater and commercial wastewater.

This is the code language that was adopted during the last CICC process. In some jurisdictions the WRA does the approval of the type and size of the grease protection along with the enforcement.

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• **UPC 1014.1 General- insert at the end of the code section**

1014.1 General. Where it is determined..... Grease drainage lines shall be clearly identified by one of the following ways.

1. Stenciled with “Grease Drainage” in yellow lettering. Letters size shall be 1½” for 2” piping, and 2” for 3” and larger piping. Stenciling shall be applied every 3 feet of piping and labeled at the future stubbed locations.

Or

2. Prior approval of an identification system approved by the AH.

This will help with the installations where the Sanitary and Grease drainage lines are stubbed into a building for future use and renovations.

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- **UPC 1101.4.3 Leaders.**

1101.4.3 Leaders. Leaders installed outside shall comply with the applicable standards referenced in Table 701.2 for aboveground drain, waste, and vent pipe; aluminum sheet metal; galvanized steel sheet metal; or copper sheet metal. Where outside leaders connected with a building storm drain or storm sewer, they shall be connected to a cast iron drain extending above the finish grade, or the sheet metal leader shall be protected against damage.

This requires that the drain connection for storm leaders connect to a cast iron receptor. In the past there have been issues with PVC being broken be ether the frost heaving or being broken at the ground leve

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- **UPC 1103.1 Vertical Conductors and Leaders. - insert at the end of the code section**

1103.1 Vertical Conductors and Leaders. Vertical conductors and leaders shall be sized by the maximum projected roof area and Table 1103.1. Vertical leader shall be sized based on a 4 inch per hour rainfall.

Sizing clarification.

MEMBER	Motioned	2nd	YEA	NAY	ABSTAIN
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- **UPC 1103.2 Size of Horizontal Storm Drains and Sewers.**

1103.2 Size of Horizontal Storm Drains and Sewers. The size of building storm drains, or building storm sewers or their horizontal branches shall be based on the maximum projected roof or paved area to be handled and Table 1103.2. Horizontal storm drains shall be sized based on a 4 inch per hour rainfall.

Sizing clarification.

MEMBER	Motioned	2nd	YEA	NAY	ABSTAIN
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Brian Rogers					
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- **UPC 1103.3 Size of Roof Gutters.**

1103.3 Size of Roof Gutters. The size of semi-circular gutters shall be based on the maximum projected roof area and Table 1103.3. Gutters shall be sized based on a 4 inch per hour rainfall.

Sizing clarification.

MEMBER	Motioned	2nd	YEA	NAY	ABSTAIN
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- **UPC 1208.6.4.4 Corrugated Stainless Steel Tubing.**

1208.6.4.4 Corrugated Stainless Steel Tubing. Corrugated stainless steel tubing shall be listed in accordance with CSA LC-1. [NFPA 54:5.6.3.4] Only CSST with an Arc Resistant Jacket or Covering System listed in accordance with ANSI LC-1 (Optional Section 5.16)/CSA 6.26-2016 shall be installed in accordance with the terms of its approval, the conditions of listing, the manufactures instructions and this code including electrical bonding requirements in Section 1211.2. CSST shall not be used for through wall penetrations from the point of delivery of the gas supply to the inside of the structure. CSST shall not be installed in locations where subject to physical damage unless protected in an approved manner.

This modification correlates with the last code cycle changes made through the CICC adoption process that was jointly worked with Manufactures, other committees and outside originations. This amendment still allows the use of CSST using only Arc resistant black coated piping with bonding to be followed, and to keep the tubing up and out of areas that can cause damage if something were to fall against it.

MEMBER	Motioned	2nd	YEA	NAY	ABSTAIN
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Jim Sanders					

- OTHER BUSINESS

- UPCOMING MEETINGS

- 12/12/2018, 2:00pm City of Des Moines Armory Building Robert D. Ray Dr, Des Moines, Iowa 50309

- ADJOURNMENT

Posted on 10-15-18 at www.capitalcrossroadsvision.com/central-iowa-code-consortium and at the City of Des Moines MSC, 1551 E. M L King Jr Pkwy, Des Moines, IA 50317