CITY OF TUCSON
PLANNING & DEVELOPMENT SERVICES

Exhibit E

City of Tucson Amendments to the 2024 International Mechanical Code

Chapter 1 Administration. DELETE Chapter 1 with the exception of Section ~~107~~ 111. (Deleted sections are administered by ~~2018~~ the 2024 IBC, Chapter 1)

Section ~~307.2.1~~ 307.2.1.1 Condensate ~~disposal~~ discharge. REVISE Section by ADDING the following at the end of the paragraph:
"Condensate ~~disposal shall be allowed to terminate~~ discharged to the exterior of a building shall be as follows:"

~~1. Into an approved fixture tailpiece, funnel drain, waste air gap fitting, floor sink, slop sink and laundry tray.~~
~~2.~~ 1. At or below grade outside the building in an area capable of absorbing the condensate flow without surface drainage.
~~3.~~ 2. Over roof drains or gutters or downspouts that connect to drainage pipes, provided they terminate at or above grade in an area capable of absorbing the condensate flow without surface drainage.

ADD new Section 309.2 as follows:
Section 309.2 Cooling systems. Dwelling units and sleeping units located in Climate Zones 0, 1, 2, 3, 4, 5A, and 5B, where the summer dry-bulb temperature is greater than 85°F (29.4°C), shall be provided with cooling systems capable of maintaining an indoor temperature at or below 80°F (26.7°C) in the occupied space. Where permanently installed fans are capable of generating 120 fpm (0.6 m/s) air speed inside the occupied space, the required cooling system shall be capable of maintaining indoor temperature at or below 85°F (29.4°C). The installation of one or more portable systems shall not be used to achieve compliance with this section.

Exception: Interior spaces where the primary purpose is not associated with human comfort.

Section 401.4 Intake opening location. REVISE Section by ADDING an exception as follows:

Exception: Replacement of existing evaporative coolers where the building official determines that the replacement does not constitute a high degree of hazard.

Table 403.3.1.1 Minimum Ventilation Rates. REVISE table by DELETING the Outpatient healthcare facilities section of the table and footnotes i and j.

Section 403.3.2 Group R-2, R-3, and R-4 occupancies. REVISE section by DELETING all instances of "and R-4."

Section 407 Ambulatory Care Facilities and Group 1-2 Occupancies. REVISE section by DELETING the entire section and REPLACE with the following:

Section 407 Healthcare Facilities
407.1 General. Mechanical ventilation for healthcare facilities shall be designed and installed in accordance with this code, ASHRAE 170/ASHE and NFPA 99. Healthcare facilities include I-1,

I-2, and R-4 occupancies along with freestanding birth centers, urgent care centers, neighborhood clinics and physicians' offices, Class 1 imaging facilities, outpatient healthcare facilities, outpatient psychiatric facilities, outpatient rehabilitation facilities, and outpatient dental facilities.

Exceptions:

1. Existing healthcare facilities that are being remodeled and the occupancy classification does not change shall meet the requirements of Section 403 or 407.

407.2 Mixed Occupancies. If no functionally equivalent spaces exist in ASHRAE 170/ASHE and NFPA 99, ventilation requirements shall be obtained from Section 403. Where spaces with prescribed rates in both ASHRAE 170/ASHE or NFPA 99 and Section 403 of this code exist, the higher of the two airflow rates shall be provided.

ADD new Section 408 as follows:

Section 408 Marijuana Related Occupancies.

Section 408.1 General. General. Marijuana related occupancies includes growing, drying, processing, cooking, storage, and sales of any marijuana or cannabis related products.

Section 408.2 Exhaust and ventilation systems. Exhaust and ventilation systems. All marijuana related occupancies shall meet one of the following paths:

1. Prescriptive path for exhaust and ventilation as described in Section 408.2.1.
2. Engineered exhaust and ventilation system as described in Section 408.2.2.

Section 408.2.1 Prescriptive exhaust and ventilation requirements.

Section 408.2.1.1 Exhaust systems. All marijuana related occupancies must be installed to the following requirements:

1. A minimum negative pressure of 0.01 inch w.c. relative to the building exterior and to adjacent spaces without marijuana related product.
2. A minimum exhaust rate of 0.2 cfm/sf of floor area or the greater as require by Section 403 or the International Fire Code.
3. Exhaust air must be treated with chemical absorption filters, such as activated charcoal prior to discharge. These filters shall have an airflow velocity across the face area of the filter that does not exceed 350 feet per minute.
4. Exhaust outlet locations shall meet the requirements of Section 501.3.1.2 for other product conveying outlets.

Section 408.2.1.2 Ventilation systems. All marijuana related occupancies must be installed to the following requirements:

1. A minimum of 1 cfm/sf of floor area of continuous recirculation air that is provided with a minimum MERV 8 filters and chemical absorbing filters such as activated carbon filters.
2. A design airflow velocity across the face of the chemical absorbing filters shall not exceed 350 feet per minute.

Section 408.2.2 Engineered exhaust and ventilation system. An approved engineered system must provide equivalent ventilation and dilution of product and production chemicals. This requirement is not intended to supersede structural, mechanical, or fire code or requirements set

by other state or federal agencies such as hazardous materials ventilation and control.

Section 607.6.1 Through penetrations. REVISE Exception 1. by ADDING "or the floor/ceiling assembly" after the word "wall" and before the word "and"

Section 607.6.2.1.2 Static systems. REVISE section by ADDING new Exceptions 4 and 5.

4. Static *ceiling radiation dampers* shall be permitted to be installed in *Dwelling Units* with smoke alarms installed in accordance with the Building Code and activation of any smoke alarm within the *Dwelling Unit* shall shut down the system.
5. Static *ceiling radiation dampers* shall be permitted to be installed in *Dwelling Units* having a fire alarm system which has smoke detectors installed within the *Dwelling Unit* in accordance with the Building Code requirements for smoke alarms. Activation of any smoke detector within the *Dwelling Unit* shall shut down the system in the *Dwelling Unit*.

Section ~~403.3.1.5~~ 608.1 Balancing. REVISE Section by ~~DELETING the second sentence which reads "Ventilation systems shall be balanced by an approved method" and REPLACING it with the following~~ ADDING the following at the end of the paragraph:

Ventilation systems shall be balanced by individuals holding current certification from the Associated Air Balance Council (AABC), the National Environmental Balancing Bureau (NEBB) or other *approved* agencies. Final reports shall be provided to the engineer of record and the code official prior to the issuance of a certificate of occupancy.

~~**Section 606.2.1 Return air systems.** REVISE Section by DELETING sentence and REPLACING it with the following:~~

~~Duct smoke detectors shall be installed in the return duct of air distribution systems moving more than 2,000 cfm. Duct smoke detectors shall be located upstream of air filters or outside air inlets.~~

ADD new Section 928.2 as follows:

Section 928.2 Water conservation. Evaporative cooling systems shall be provided with a recirculating water system. Any bleed off rate used by the system shall be limited to that recommended by the manufacturer. Once-through evaporative cooling systems using potable water shall not be permitted.

ADD new Section ~~930~~ 932 as follows:

Section 932 Water-cooled refrigeration/heat removal systems.

ADD new Section ~~930~~ 932.1 Water conservation. A water-cooled refrigeration system or heat removal system, (defined as refrigeration or heat removal system using water, all, or in part, for condensing a refrigerant), shall not discharge more than three gallons of water per nominal ton per hour into an approved sanitary disposal system. Condenser wastewater discharge shall be accomplished by the use of an air gap, as described in the *International Plumbing Code*. Each water-cooled system shall be provided with one or more of the following water-saving devices: (a) a cooling tower: or (b) an evaporative condenser; or (c) an *approved* water circulating device.

Section 1001.1 Scope. REVISE Section by DELETING the text of exception 7 and REPLACING it with the following:

7. Any boiler or lined water heater in excess of 200,000 BTU shall be subject to inspection by

Federal or State inspections. See Arizona Boiler Rules for regulations, Title 20, Chapter 5.

Section 1004.1 Standards. REVISE Section by DELETING all text after the second sentence and ADDING the following:
Boilers shall be designed and constructed in accordance with the ASME *Boiler and Pressure Vessel Code*, and Arizona Boiler Rules, Title 20 Chapter 5.

Section 1101.1 Scope. REVISE Section by ADDING a new paragraph after the first two sentences with the following:
ANSI/ASHRAE Standard 15 is a referenced standard and is regularly updated through continuous maintenance process and provides more up-to-date requirements for refrigerant safety. The refrigeration system shall meet the requirements of this Chapter or ANSI/ASHRAE 15-2024 with the companion standard ANSI/ASHRAE 34-2024.

Section 1109.2.5 Exception 2. REVISE section by DELETING the words "using Group A1 refrigerant."