**2024 International Energy Conservation Code**

**2024 PUBLIC INPUT TO THE 2021 IECC, IRC CH. 11**

**C202 and R202**

**Add new definitions as follows:**

**AUTOMOBILE PARKING SPACE.** A space within a building or private or public parking lot, exclusive of driveways, ramps, columns, office and work areas, for the parking of an automobile.

**ELECTRIC VEHICLE (EV).** An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, and electric motorcycles, primarily powered by an electric motor that draws current from a building electrical service, *EVSE*, a rechargeable storage battery, a fuel cell, a photovoltaic array, or another source of electric current.

**ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE).** Equipment for plug-in power transfer including the ungrounded, grounded and equipment grounding conductors, and the *electric vehicle* connectors, attachment plugs, personal protection system and all other fittings, devices, power outlets or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the *electric vehicle*.

**ELECTRIC VEHICLE SUPPLY EQUIPMENT INSTALLED SPACE (EVSE space).** An *automobile parking space* that is provided with a dedicated *EVSE* connection

**ELECTRIC VEHICLE CAPABLE SPACE (EV CAPABLE SPACE)**. A designated *automobile parking space* that is provided with electrical infrastructure, such as, but not limited to, raceways, cables, electrical capacity, and panelboard or other electrical distribution equipment space, necessary for the future installation of an *EVSE*.

**ELECTRIC VEHICLE READY SPACE (EV READY SPACE)**. An *automobile parking space* that is provided with a branch circuit and either an outlet, junction box or receptacle, that will support an installed *EVSE*.

**Add new text as follows:**

**R404.4 Electric Vehicle Power Transfer Infrastructure.**. New residential automobile parking spaces for R-2 occupancies shall be provided with electric vehicle power transfer infrastructure in accordance with Sections R404.4.1 through R404.4.5

**R404.4.1 Quantity.** R-2 occupancies or allocated parking for R-2 occupancies in mixed-use buildings shall be provided with an EV capable space, EV Ready space, or EVSE space for each dwelling unit or automobile parking space, whichever is less.

**R404.4.2 EV Capable Spaces.** Each *EV capable space* used to meet the requirements of Section R404.4.1 shall comply with all of the following:

1. A continuous raceway or cable assembly shall be installed between an enclosure or outlet located within 3 feet (914 mm) of the *EV capable space* and a suitable panelboard or other onsite electrical distribution equipment.
2. Installed raceway or cable assembly shall be sized and rated to supply a minimum circuit capacity in accordance with R404.4.4.
3. The electrical distribution equipment to which the raceway or cable assembly connects shall have sufficient dedicated space and spare electrical capacity for a 2-pole circuit breaker or set of fuses.
4. The electrical enclosure or outlet and the electrical distribution equipment directory shall be marked: “For future *electric vehicle supply equipment* (*EVSE)*.”
5. Reserved capacity shall be no less than 4.1 kVA (20A 208/240V) for each *EV capable space* serving R2 occupancies.

**R404.4.3 EV Ready Spaces.** Each branch circuit serving *EV ready spaces* shall comply with all of the following:

1. Terminate at an outlet or enclosure, located within 3 feet (914 mm) of each *EV ready space* it serves.
2. Have a minimum circuit capacity in accordance with R404.4.4.
3. The panelboard or other electrical distribution equipment directory shall designate the branch circuit as “For electric vehicle supply equipment (EVSE)” and the outlet or enclosure shall be marked “For electric vehicle supply equipment (EVSE).”

**R404.4.4 Circuit Capacity.** The capacity of electrical infrastructure servingeach *EV capable space, EV ready space* and *EVSE space* shall comply with one of the following:

1. A branch circuit shall have a rated capacity not less than 8.3 kVA (or 40A at 208/240V) for each *EV capable space*, *EV ready space* or *EVSE space* it serves. Where a circuit is shared or managed it shall be in accordance with NFPA 70.
2. The requirements of R404.4.4.1.

Exceptions:1. Where the local electric distribution entity has certified in writing that it is not able to provide 100% of the necessary distribution capacity within 2 years after the estimated date of the certificate of occupancy. The required EV charging infrastructure shall be reduced based on the available existing electric distribution capacity.

2. For R-2 occupancies, where substantiation has been approved that meeting the requirements of Section R404.4.4.1will alter the local utility infrastructure design requirements on the utility side of the meter so as to increase the utility side cost to the builder or developer by more than $400.00 per dwelling unit.

**R404.4.4.1 Circuit Capacity Management.** The capacity of each branch circuit serving multiple *EVSE spaces*, *EV ready spaces* or *EV capable spaces* designed to be controlled by an energy management system providing load management in accordance with NFPA 70, shall have a capacity of not less than 2.7 kVA per space. :

**R404.4.5 EVSE Installation.** *EVSE* shall be installed in accordance with NFPA 70 and Section R404.4.5.1 and shall be listed and labeled in accordance with UL 2202 or UL 2594.

 **R404.4.5.1 EVSE Minimum Charging Rate.** Each installed EVSE shall comply with one of the following:

1. Be capable of charging at a rate of not less than 6.2 kVA (or 30A at 208/240V).

.2. Where serving EVSE spaces allowed to have a circuit capacity of not less than 2.7 kVA in accordance with R404.4.4.1 and controlled by an energy management system providing load management, be capable of simultaneously charging each ESVE space at a rate of not less than 2.1 kVA.