



# Washington State Building Code Council

*Improving the built environment by promoting health, safety and welfare*

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## STATE BUILDING CODE INTERPRETATION NO. 16-10

**CODE:** 2015 International Building Code

**SECTION:** 427.1 Scope - Electric Vehicles  
427.2 Required Electric Vehicle Charging Infrastructure  
427.3 Electrical Room(s)  
427.4 Required Electric Vehicle Charging Infrastructure

**QUESTION 1:** A new building is a mixed occupancy with both Group B and Group M. Is the five percent of parking spaces required by 427.2 to be provided with EV charging infrastructure and the 20 percent of parking spaces accommodated in electrical room area required by 427.3 calculated based on the parking spaces associated with the Group B portion of the building?

**ANSWER 1:** **Yes, the EV charging infrastructure applies only to the parking associated for the portion of the new building serving one of the covered occupancies.**

**QUESTION 2:** Section 427.3 calls for an electrical room to serve a minimum of 20 percent of parking spaces. Section 427.4 item 2 calls for additional service capacity; is the additional service capacity based on 5 percent of parking spaces?

**ANSWER 2:** **Yes, Section 427.4 refers to EV charging infrastructure required by section 427.2. The additional service capacity is based on five percent of parking spaces. Section 427.3 refers to the electrical room area to accommodate future installation of EV charging infrastructure. In no case shall the electrical room be required to be sized to serve more than 20 percent of the total parking spaces.**

**QUESTION 3:** Sections 427.3 and 427.4 reference a 208/240 V 40-amp charging station, which correlates to a Level 2 station. Is it acceptable to design around an actual Level 2 station that has a lower amp draw?

**ANSWER 3:** **No, the code specifies the service capacity accommodate EV charging stations at 40 amps.**

QUESTION 4: Are diversity factors or load management devices allowed in the design, to reduce the impact on the electrical service sizing?

**ANSWER 4: There are no diversity factors based on the number of stations installed, but the electrical system can be designed to reduce service sizing. The provisions of 2014 National Electrical Code® 625.41 (625.42 in the 2017 edition) may be used, which states: The equipment shall have sufficient rating to supply the load served. Electric vehicle charging loads shall be considered to be continuous loads for the purposes of this article. Where an automatic load management system is used, the maximum equipment load on a service and feeder shall be the maximum load permitted by the automatic load management system.**

**SUPERSEDES:** None

**REQUESTED BY:** City of Bellingham