

**NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
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Required v. Non-Required Receptacles

Code: 2020 Electrical Code
Sections: 210.11(C)

Date: November 1, 2021

Question 1:

Can additional non-required receptacle outlets located within the garage of a dwelling be supplied by a 15- or 30-amp branch circuit?

Answer 1:

Yes. Section 210.11(C)(4) mandates that only the required receptacle outlet(s) referenced in section 210.52(G)(1) must be on a 20-amp branch circuit. Therefore, any receptacle outlets that are in addition to the one(s) required by section 210.52(G)(1) are allowed to be supplied by additional branch circuits that are not obligated to the 20-amp requirement of section 210.11(C)(4).

Example: A two-vehicle bay has two required receptacle outlets, each located within each vehicle bay of a dwelling's garage four feet above the floor and supplied by a single 20-amp branch circuit that supplies no other outlets. There are also two additional non-required receptacle outlets, each located within each vehicle bay of a dwelling's garage four feet above the floor and supplied by a single 15-amp branch circuit.

Question 2:

Can additional non-required branch circuits supplying non-required receptacle outlets located within the garage of a dwelling also supply outlets not located within the garage?

Answer 2:

Yes. Section 210.11(C)(4) mandates that only the required 20-amp branch circuit(s) be exclusive to the garage. Therefore, any branch circuits that are in addition to the branch circuits required by section 210.11(C)(4) are not obligated by the same section to be exclusive to the garage.

Example: A two-vehicle bay has two required receptacle outlets, each located within each vehicle bay of a dwelling's garage four feet above the floor and supplied by a single 20-amp branch circuit that supplies no other outlets. There are also two additional non-required receptacle outlets, each located within each vehicle bay of a dwelling's garage four feet above the floor and supplied by a single 15-amp branch circuit. The single 15-amp branch circuit also extends to supply a receptacle outlet in the hallway and lighting outlets on the garage's exterior.

Question 3:

Can additional non-required receptacle outlets located within the garage of a dwelling be supplied by the required 20-amp branch circuit that supplies the required receptacle outlet(s) of section 210.52(G), considering the last sentence in section 210.11(C)(4) states “[t]his circuit shall have no other outlets”?

Answer 3:

Yes. The revision to the 2020 NEC added text to section 210.11(C)(4) with the intent of clarifying that the required 20-amp branch circuit was specific for supplying the required receptacle outlet(s) mandated by section 210.52(G)(1). This change was intended to prevent the vehicle bay(s) from being without at least one receptacle outlet supplied by a 20-amp branch circuit.

There is no evidence from NEC-CMP Panel 02 to suggest that the intent of the new text was to prevent non-required receptacle outlets that are located within the garage from also being supplied by the required 20-amp branch circuit. Therefore the 2020 State Electrical Code in North Carolina shall be interpreted as section 210.11(C)(4) prevents outlets that are not within the garage from being supplied by the required 20-amp branch circuit but allows additional non-required receptacle outlets located within the garage to be supplied by the required 20-amp branch circuit, including any receptacle outlets permitted by exception.

Example: A two-vehicle bay has two required receptacle outlets, each located within each vehicle bay of a dwelling’s garage four feet above the floor and supplied by a single 20-amp branch circuit that supplies no other outlets. There are also two additional non-required receptacle outlets, each located within each vehicle bay of a dwelling’s garage four feet above the floor and supplied by the same single 20-amp branch circuit. The single 20-amp branch circuit also extends to supply a receptacle outlet on the garage’s exterior as allowed by the exception.

Question 4:

Can the logic of that questions and answers above be used to address similar issues with bathrooms and laundry areas?

Answer 4:

Yes. Except for the examples, the reader can substitute the word bathroom(s) or laundry area(s) for garage(s), section 210.11(C)(4) with section 210.11(C)(3) or section 210.11(C)(2), and section 210.52(G)(1) with 210.52(D) or section 210.52(F) respectfully.

Question 5:

What constitutes how many separate vehicle bays exist in a garage?

Answer 5:

The State Electrical Division is not going to determine how many vehicles of various sizes will use the area of every garage built in the State as a bay. Likewise, the State is not going to determine the threshold for differentiating between the number of vehicle bays from the various sizes of vehicle-type door(s). Therefore the 2020 State Electrical Code in North Carolina shall be interpreted as the number of vehicle bays are determine by the number of vehicle-type doors serving the garage. Thus, if there is one vehicle-type door on a garage then there exists one vehicle bay with respect to applying the minimum Code, and regardless of the size of the vehicle-type door.

It is not the duty of the NEC to mandate receptacles for convenience and good service (see section 90.1(B)). The State expects electrical contractors licensed in North Carolina will use sound judgment in their profession for determining if the size or unique design of a garage warrants additional non-required receptacle outlets to prevent drop cords from being used excessively and on a permanent basis.