

ELECTRICAL INDEX Based on 2023 NEC

Residential Code of Ohio Construction Document Requirements

RCO Section 106, construction documents are required.

Stark County Building Dept.
7235 Whipple Ave NW Ste A
Canton, OH 44720
Ph: 330-451-1770
Fax: 330-491-8373
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ELECTRICAL

NEC 110.3 All electrical equipment shall be installed and used in accordance with the listing requirements and manufacturer's instructions.

Service

NEC 230.85 (A) Emergency Disconnects. For one and two family dwelling units, an emergency disconnecting means shall be installed.

(1) Location. The disconnecting means shall be installed in a readily accessible outdoor location on or within sight of the dwelling unit.

NEC 310-12 Conductor Sizes 120/240 VOLT 3-Wire, Single-Phase, Dwelling Services/Feeders.

NEC 310-16 Ampacities of conductors.

NEC 250.24 C Main Grounding electrode goes to neutral.

NEC 250.50 All grounding electrodes that are present at each building or structure served shall be bonded together to form the grounding electrode system.
Conductor size per NEC 250.66.

NEC 250.52 Permitted electrodes include:

1. Metal underground water pipe in direct contact with earth for 10 feet or more
2. Metal frame of the building
3. Concrete-encased electrode
4. Rod, pipe & plate electrodes

NEC 230.70 A-3 Service – Disconnecting Means

NEC 230.71 A-B Maximum Disconnect

General Circuitry

NEC 210.11 and 422.12 In addition to the branch circuits installed to supply general illumination and receptacle outlets in dwelling units, the following minimum requirements apply: Two 20-amp circuits for the kitchen receptacles, One 20-amp circuit for the laundry receptacles, One 20-amp circuit for the bathroom receptacles and One separate, individual branch circuit for central heating equipment

NEC 210.11 C.4 20 amp circuit to garage receptacles.

NEC 210.52 Receptacles installed in the kitchen to serve countertop surfaces shall be supplied by not less than two separate small appliance branch circuits.

NEC 210.52 Generally, receptacle outlets in habitable rooms shall be installed so that no point measured horizontally along the floor line in any wall space is more than 6 feet from a receptacle outlet. A receptacle shall be installed in each wall space 2 feet or more in width.

NEC 210.52 At kitchen countertops, receptacle outlets shall be installed so that no point along the wall line is more than 24 inch measured horizontally from a receptacle outlet in that space. Countertop spaces separated by range tops, sinks or refrigerators are separate spaces.

NEC 210.52 C (2) (3) (PAGE 87 CODE)

(2) Island and Peninsular countertops and work surfaces.

Receptacle outlets, if installed to serve an island or peninsular countertop or work surface, shall be installed in accordance with 250.52 © (3). If a receptacle outlet is not provided to serve and island or peninsular countertop or work surface, provisions shall be provided at the island or peninsula for future addition of a receptacle outlet to serve the island or peninsular countertop or work surface.

(3) Receptacle outlet location.

Receptacle outlets shall be located in one or more of the following:

- (1) On or above, not more than 500 mm (20 in.) above, a countertop or work surface.
- (2) In a countertop using receptacle outlet assemblies listed for use in countertops.
- (3) In a work surface using receptacle outlet assemblies listed for use in work surfaces or listed for use in countertops.

NEC 210.52 At least one receptacle, accessible at grade level and no more than 6.5' above grade, shall be installed at the front and back of a dwelling

NEC 210.12 All branch circuits supplying 125-volt, 15 and 20 ampere outlets in dwelling unit per 210.12 shall be protected by a listed arc-fault circuit interrupter device.

NEC 210.8 Ground-fault circuit-interrupter (GFCI) protection shall be provided for all 125-volt, 15 and 20 amp receptacle outlets installed outdoors, in boathouses, garages, unfinished accessory buildings, crawl spaces at or below grade level, basements, bathrooms, at kitchen countertops and within 6' of the outside edge of a sink, indoor dam or wet locations.

I hereby do certify that all information given above is correct and accurate and has been included as part of the submitted plans and will comply with 2023 NEC.

PRINTED NAME (Owner/Applicant)

SIGNATURE

TITLE

DATE

ADDRESS

MECHANICAL INDEX

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MECHANICAL

M1401.1 Heating and cooling equipment and appliances shall be installed in accordance with the manufacturer's installation instructions and the requirements of the Residential Code.

Sizing

M1401.3 Heating and cooling equipment shall be sized based on building loads calculated in accordance with ACCA Manual J or other approved heating and cooling calculation methodologies.

Gages of Metal Ducts & Plenums Used for Heating/Cooling

Types of Ducts	Size (inches)	Minimum Thickness (inch)	Equiv. Galvanized Sheet Gage	Approx. Aluminum B & S Gage
Round Ducts & Enclosed Rectangular	14 or less over 14	0.013	30	26
		0.016	28	24
Exposed Rectangular Ducts	14 or less over 14	0.016	28	24
		0.019	26	22

Access & Installation

M1401.2 Heating and cooling equipment shall be located with respect to building construction and other equipment to permit maintenance, servicing and replacement. Clearances shall be maintained to permit cleaning of heating and cooling surfaces; replacement of filters, blowers, motors, controls and vent connections; lubrication of moving parts; and adjustments

M1601.4/1601.4.1 Joint seams and connection seal.

M1601.4.3 Metal ducts shall be supported by 0.5-inch (12.7 mm) wide 18-gage metal straps or 12-gage galvanized wire at intervals not exceeding 10 feet (3048 mm) or other approved means. Nonmetallic ducts shall be supported in accordance with manufacturer's installation instructions.

M1401.4 Equipment installed outdoors shall be listed and labeled for outdoor installation. Supports and foundations shall prevent excessive vibration, settlement or movement of equipment. Supports and foundations shall be level and conform to manufacturer's installation instructions.

Plumbing

Provide layout of plumbing fixtures on floor plan. Plumbing permit required through the Stark County Health Department

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