



THE VILLAGE OF

OAK LAWN

Village of Oak Lawn Building Department

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Revisions to the Village of Oak Lawn Electrical Code – Updated 5/25/2021

Chicago Electrical Code: The rules and regulations of the 2018 Edition of the Chicago Electrical Code, based on the 2017 National Electrical Code, are hereby adopted, save and except such portions as are hereafter deleted, modified or amended, and with the addition of those sections hereafter set forth as additions thereto, the same are incorporated as if fully set forth herein; one copy having been and now being on file with the clerk, with the exceptions set forth in section 6-2-4 of this chapter.

Where any provision of conflict with any provisions of this village code, the provisions of the village code shall prevail and shall be applied as law of the village.

Section 13-12-290. QUALIFICATIONS.

It shall be unlawful for any person to engage in the business of electrical contractor, as herein defined, without being registered as an electrical contractor in the manner hereinafter set forth; provided, however, that if such person is already registered for the current year in any one of the following municipalities:

- City of Chicago
- City of Waukegan
- Village of Orland Park
- Village of Libertyville
- Village of Lansing
- City of Elgin
- City of Naperville
- Village of Schaumburg
- City of Ottawa
- City of Woodstock
- Village of Buffalo Grove

6-2-3: RULES AND REGULATIONS ADOPTED:

The following rules are hereby adopted as the safe and practical standard for the installation, alteration, repair and use of electrical equipment in the village:

Section 6-2-7-1: NEW SINGLE FAMILY RESIDENCES: The following regulations shall apply to electrical services for new single-family residences:

A. For single-family residences having a total floor area of one thousand five hundred (1,500) square feet or more, as determined by the Planning, Building and Zoning Division:

1. The service entrance conduit shall be two-inch (2") trade size, aluminum, IMC or galvanized iron conduit. No thin wall conduit shall be used. The minimum service size shall be two hundred (200) amps.
2. The service entrance conductors shall have a current carrying capacity of two hundred (200) amps and shall be equal to or better than copper, AWG size 3/0 THWN minimum size.
3. The service entrance switch shall contain:
 - A. A two hundred (200) ampere main switch or breaker which will disconnect all distribution in the building. No split buss panels shall be used.
 - B. A minimum thirty (30) circuit panel and a maximum forty two (42) circuit panel.

B. For single-family residences having a total floor area less than one thousand five hundred (1500) square feet.

1. The service entrance conduit shall be one and one-fourth inch (1¼") trade size, aluminum, IMC or galvanized iron conduit. No thin wall conduit shall be used. The minimum service size shall be one hundred (100) amps.
2. The service entrance conductors shall have a current carrying capacity of one hundred (100) amps and shall be equal to or better than copper, AWG size 2, THWN minimum size.
3. The service entrance switch shall contain a one hundred (100) ampere main switch or breaker, which will disconnect all distribution in the building. No split buss panels shall be used. Only a minimum twenty (20) circuit panel and a maximum twenty four (24) circuit panel shall be provided.

6-2-7-1: NEW SINGLE-FAMILY RESIDENCES:

The following regulations shall apply to electrical services for new single-family residences:

C. As a minimum, circuit loads shall be connected as follows:

1. Two (2) appliance circuits, #12 wire to the kitchen area. All countertop receptacles shall be GFCI protected. These can be used in the dining area for appliances. No split plugs to be used. Soffit light and fan shall not be fed from appliance circuits.
2. Gas range and hood fan shall be on a separate fifteen (15) ampere circuit.
3. One 15- or 20-ampere circuit shall be provided for microwave oven.
4. One 15-or 20-ampere circuit shall be provided for dishwasher.
5. One 20-ampere circuit shall be provided for refrigerator.
6. One 15-ampere circuit shall be provided for garbage disposal unit.
7. One 20-ampere circuit shall be installed in all bathrooms for GFCI receptacles only.
8. One circuit shall be provided each for sump pump and ejector pump.
9. One circuit for heating system.
10. One circuit for laundry plug, twenty (20) ampere, #12 wire (not GFCI protected).
11. Living room and family room shall be on a separate fifteen (15) ampere circuit, GFCI protected below switch.
12. Three (3) circuits for general lighting load.
13. Two (2) spare circuits for future use.

Where required and approved, additional circuits in accordance with the requirements set forth in the adopted electrical code rules and regulations may be permitted.

D. Ground straps shall not be located in any crawl space less than forty eight inches (48") in depth.

- E. The two hundred twenty (220) volt appliance circuit shall be double pole; no tie bar to be used.
- F. Panel circuit breakers shall conform to Chicago Electrical Code section 240.85.
- G. A #8 copper clad grounding electrode shall be installed for all new service installations to meter socket, and to grounding bushings.
- H. All service grounding cable shall be located at line side of water meter, with an appropriately sized bonding jumper connection across the meter space.
- I. Aluminum wire shall not be used anywhere in building.

6-2-7-2: SINGLE FAMILY RESIDENCE SERVICE CHANGES AND REPAIRS: Service changes and repairs for single-family residences shall be in accordance with the requirements set forth in subsections 6-2-7-1A, 1B, 1D, 1E, 1F, 1G, 1H and 1I of this chapter

6-2-7-3: SERVICE ENTRANCE CABLE:

- A. Service entrance cable shall not be approved for a new service or service change installation. Permission may be granted on service change installations where conditions warrant.
- B. Post lights and all permanent outside lighting shall be wired and three (3) conductor direct burial cable or in conduit, with one wire grounded to fixture and to the nearest metallic ground in system.

6-2-7-4: GARAGES:

Garages shall have at least two (2) ceiling lights on a general lighting circuit, one ceiling receptacle on a fifteen (15) ampere circuit, and three (3) GFCI receptacles, one installed on each of three (3) different walls. All wall receptacles shall be on the same twenty (20) ampere circuit and separate from all other lighting and receptacles. All receptacles must be installed at least four feet (4') above finished floor. All outside doors shall be illuminated. All electrical feed to the garage shall be underground, in accordance with the minimum cover requirements found in table 18-27-300.5. Only rigid, IMC heavy wall or rigid nonmetallic (PVC, schedule 40, with ground wire) conduit shall be used to feed the garage. One end of the conduit or ground wire shall be grounded to the conduit system in the garage and other end to the nearest metallic ground within the house. Special permission will be given to overhead aerial wires. If the condition warrants this, if in writing, and the inspection department, upon investigation, is aware of existing conditions. (Ord. 01-09-32)

6-2-7-5: CENTRAL AIR CONDITIONING UNITS:

For installation of central air conditioning units in single-family dwellings, hereafter all equipment that is required, including the power unit, shall only be permitted to be installed within a rear or side yard as defined in section 4-5A-3 of this code. In no event shall a central air conditioning unit be installed in a manner that encroaches more than three feet (3') into the applicable yard, with a minimum side yard width of six feet (6'). All installations shall be made by a licensed and registered electrical contractor after the proper permits are taken out. All units shall be wired from the house to the unit with sealtite flexible conduit to eliminate any vibrations from the unit to the house.

6-2-7-6: EXIT AND EMERGENCY LIGHTING:

- A. There shall be installed in all apartment buildings of three (3) floors or more, containing five (5) apartment units or more, a complete exit and emergency system, exit signs to be fed from an emergency panel that is fed from the line side of the main switch. Emergency and exit sign illumination shall be obtained from battery powered emergency lighting units located so as to provide emergency illumination to all points of egress. Exit signs may be constructed of plastic pursuant to Chicago Electrical Code Section 700.66(c)(3),

B. In all retail stores, commercial buildings, office buildings, restaurants, lounges or other places of public use or assembly, where an occupancy is eight hundred (800) square feet or larger, a battery powered exit sign system shall be installed which shall operate on the battery during a power failure.

C. In all retail stores, commercial buildings and office buildings, of two thousand (2,000) square feet or larger, and in all restaurants, lounges or other places of public use or assembly, of eight hundred (800) square feet or larger, an emergency lighting system shall be installed. Said emergency lighting system is to be energized by either an auxiliary electrical generating system, or by a wet electrical storage battery system, whereby either are activated automatically upon the failure of the normal source and supply of electrical energy. Emergency illumination of sufficient lumens shall be provided for all stairways, staircases, exit doors, internal fire hose locations, exit aisles and corridors. Also, emergency lighting with battery backup shall be provided in all washrooms having two (2) or more water closet fixtures.

D. For purposes of this section, the phrase "other places of public use or assembly" shall mean something other than a restaurant or lounge used by fifty (50) or more persons for religious, recreational, educational, political, social, or amusement purposes, and not specified in this section, including, but not limited to: gymnasiums, clubrooms, conference rooms, courtrooms, and banquet halls. (Ords. 76-16-30, 78-24-60, 84-6-12, 94-3-8, 01-09-32)

6-2-7-7: SMOKE AND CARBON MONOXIDE DETECTORS:

A. Detectors: Detectors shall comply with the International Fire Code with the changes outlined in section 7-3-1 of this code.

B. Dead Batteries: Smoke alarms shall be maintained in an operative condition at all times. If during an inspection, the fire code official or a duly authorized representative finds a solely battery operated smoke alarm inoperable due to a dead battery, the building owner shall immediately replace the solely battery operated smoke alarm with a listed electrically operated smoke alarm. The smoke alarm shall receive primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. (Ords. 14-04-10, 14-27-62)

Plenum cable shall be permitted in a plenum HVAC ceiling

6-2-7-10: GROUND FAULT CIRCUIT INTERRUPTERS:

A. Swimming Pools: Ground fault circuit interrupters shall be used on all outlets in all swimming pools, ornamental pools or other similar bodies of water both inside and outside of the building.

B. Bathrooms: All bathrooms and powder rooms shall have ground fault circuit interrupter receptacles on a twenty (20) ampere circuit for all outlets. Exhaust fans and lighting shall be connected to the load side of GFCI receptacles on a fifteen (15) ampere circuit to the nearest GFCI receptacle in the bedrooms. Spas, whirlpool tubs, hot tubs and similar bathing fixtures shall have their power supply connected to a GFCI circuit breaker on a separate circuit within the distribution panel.

C. Rooftop HVAC Equipment: All rooftop air conditioning units and heating units shall be on a separate GFCI protected receptacle. (Ords. 94-3-8, 01-09-32)

6-2-7-11: EXTERIOR OUTLETS AND FIXTURES:

- A. Exterior Outlets to Be Weatherproofed: All exterior outlets shall be installed in weatherproof boxes, one-fourth inch to one-half inch (1/4" - 1/2") from wall.
- B. Exterior Receptacles: All exterior receptacles for outlets shall be GFCI protected.
- C. Box For Exterior Bracket Lights: All exterior bracket lights shall be installed in an Underwriters' Laboratory approved metal box. (Ords. 66-23-62, 76-16-30, 94-3-8, 01-09-32)

6-2-7-13: ELECTRICAL ROOMS/CLOSETS:

All electrical rooms/closets shall be used for electrical equipment only and proper venting shall be provided. No plumbing or HVAC ducts shall be installed within or through said room, except for automatic fire suppression system (fire sprinkler) piping and sprinkler heads as may be approved by the village fire department. (Ord. 01-09-32)

6-2-7-14: CARBON MONOXIDE DETECTORS:

Carbon monoxide alarms shall be required and installed in all residential occupancies, new and existing, in accordance with this section:

- A. Newly Constructed Single-Family and Single-Family Attached Dwellings: Carbon monoxide detectors will be required to be installed in or adjacent to (within 15 feet of) all sleeping areas. They shall be both AC and DC (battery) powered, and detectors remote to one another shall be interconnected.
- B. Existing Single-Family and Single-Family Attached Dwellings: Carbon monoxide detectors shall be required to be installed in or adjacent to (within 15 feet of) all sleeping areas. They shall be either AC or DC (battery) powered.
- C. Newly Constructed Apartment Buildings: Carbon monoxide detectors shall be required to be installed within each dwelling unit in or adjacent to (within 15 feet of) all sleeping areas. They shall be both AC and DC (battery) powered, and detectors remote to one another shall be interconnected.
- D. Existing Apartment Buildings: Carbon monoxide detectors shall be installed within each dwelling unit in or adjacent to (within 15 feet of) all sleeping areas. They shall be either AC or DC (battery) powered.
- E. New and Existing Hotels/Motels: One carbon monoxide detector shall be installed on each floor where occupants will be sleeping in a common area as approved by the building official. An approved carbon monoxide detection system, designed to warn occupants, or sound a warning in a constantly attended location, may be installed in lieu of individual floor detectors. Floor detectors and/or systems shall be installed in lieu of individual floor detectors. Floor detectors and/or systems shall be both AC and DC (battery) powered. Individual sleeping rooms with fuel burning appliances located within the room shall each have a carbon monoxide detector installed within each room, where not protected by an otherwise approved detection system.
- F. New and Existing Healthcare/Institutional Occupancies: One carbon monoxide detector shall be installed on each floor where occupants will be sleeping, in a common area as approved by the building official. An approved carbon monoxide detection system, designed to warn occupants, or sound a warning in a constantly attended location, may be installed in lieu of individual floor detectors. Floor detectors and/or systems shall be both AC and DC (battery) powered. Individual sleeping rooms, with fuel burning appliances located within the room, shall each have a carbon monoxide detector installed within each room, where not protected by an otherwise approved detection system. (Ord. 07-04-15)

SOLAR:

A. Line taps are not acceptable

B. Requires UL/CECHA (Underwriters Laboratory/Commonwealth Edison Chicago Housing Authority) approved solar backfeed meter fitting, with a double lug configuration that appropriately accommodates specific gauge wires utilized during installation.

PENETRATIONS THROUGH WALLS, ROOFS AND FLOORS:

Holes made in masonry or frame walls, roof or floors to permit the passage of conduit or conductors shall be completely and permanently sealed by the use of suitable materials compatible with the construction of the walls, roofs, or floors after the conduit or conductor have been installed. All materials shall maintain the original fire rating of such walls, roofs, and floors. Conduit passing through any roof shall have a meter flashing sealed with a mastic or an approved neoprene (or comparable) seal.

ABANDONED ELECTRICAL EQUIPMENT:

All raceways, cables, boxes and equipment abandoned as a result of new work shall be removed in dwelling and commercial occupancies.

ADDITIONAL LOADS:

The addition of any further load on an installation other than that for which the installation was previously approved, does not relieve the installer from making such additional changes as may be necessary to make the installation meet the additional requirement necessitated by his installation. In all cases the installer of any load to a previously approved service shall be responsible for the adequacy of that service after his load has been installed.

LAYOUT:

In laying out an installation, every reasonable effort shall be made to secure distribution centers located in easily accessible places; at which points the cutouts and switches controlling the several branch circuits can be grouped for convenience and safety of operation. The load shall be balanced as evenly as possible among the branch circuits and feeders.