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TO: Municipal Services Committee

FROM: Kurt W. Craanen, Inspections Supervisor
Paula Vandehey, Director of Public Works

SUBJECT: Update to Article VI (Electrical) of the Municipal Code

DATE: June 12, 2019

The Wisconsin Department of Safety and Professional Services (DPS) has recently updated standards related to the adoption of the National Electrical Code (NEC).

As a result of these changes, multiple sections of the Municipal Code of the City of Appleton, Article VI should be updated to be consistent with State standards. These changes are attached.

In addition, staff recommends several changes to the Municipal Code, including:

- In cases where electrical work is covered without inspection, the owner is required to hire a licensed master electrician to obtain a permit and take responsibility for the work done (4-346);
- Nonmetallic cable may now be used in commercial buildings (4-439); and
- Temporary electrical equipment must be removed or will be considered rubbish (4-420).

The Department of Public Works recommends approval of the changes to Article VI (Electrical) of Chapter 4 of the Municipal Code of the City of Appleton.

cc: Amanda Abshire

ARTICLE VI. ELECTRICAL

DIVISION 1. GENERALLY

Sec. 4-341. Adoption of the State Electrical Code, State Statutes and other standards.

The Wisconsin Administrative Code, SPS chapters 305, ~~and 316 and 324~~, Wis. Stats. §101 subchapter IV and We Energies meter manuals are hereby adopted by reference and made a part of this article with the same force and effect as though set out in full in this article.

Sec. 4-342. Definitions.

The following words, terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Electrical work means and includes the installation of electrical wiring, devices and equipment for the production, modification, utilization or safeguarding of electrical energy as covered by the code adopted in § 4-341. Replacement of meter socket(s), service changes and electrical panel replacements are considered electrical work.

Electrical contractor means a legal entity licensed by the State of Wisconsin under SPS 305.41.

Maintenance includes only the necessary repairs to provide the safe operation of previously installed electrical equipment.

Sec. 4-343. Enforcement generally.

The electrical inspector shall enforce all the ordinances or laws relating to electrical installation, including any lawful orders issued by the Department of Safety and Professional Services or any other agency of the State; there is hereby vested in the electrical inspector the necessary power and authority to properly execute such duties. The electrical inspector may issue a citation for any violation of this chapter at any stage of the construction phase.

Sec. 4-344. Authority to discontinue electrical service.

In case of emergency and where electrical currents are dangerous to life or property or may interfere with the work of the Fire Department, the electrical inspector may order all electrical currents disconnected.

Sec. 4-345. Periodic inspection.

The electrical inspector periodically shall make thorough examinations of all the electrical wires and appliances equipment installed in places of public use and occupancy within the City. When such wires

or appliances equipment are found to be in a dangerous or unsafe condition, he shall notify the person owning, using, operating or installing the wires or appliances to place them in a safe condition. The electrical inspector may order the discontinuance of electrical service to such defective wires or equipment until they have been repaired, removed or changed as directed by the electrical inspector, subject to the limitations of this article.

Sec. 4-346. Notification for inspection; concealment of wiring.

Upon the completion of the wiring of any building or before any wiring is to be hidden from view, or prior to reconnecting of service drop or reattachment of electric meter, the person doing the wiring shall notify the electrical inspector. The electrical inspector shall inspect within two full business days following the day of notification, excluding weekends and holidays. If, upon inspection, it is found that such installation is fully in compliance with this article and does not constitute a hazard to life or property, the electrical inspector shall approve the installation and authorize concealment of such wiring or connection for electrical service. If the installation is not strictly in accordance with this article, he shall require the person installing the wiring to remove all hazards and make the necessary changes or additions as soon as practicable. Concealment of electrical work before inspection or failure to comply with the order of the electrical inspector shall constitute a violation of this article. A contractor or his employee, or an owner doing his own work as permitted by § 4-392(e) shall be present for the final inspection. Nothing under this section shall prevent enforcement of this section under Secs. 4-24, 4-343, or any other applicable section.

Failure to notify the electrical inspector prior to concealing the electrical wiring nullifies the residential property owner exemption under 4-392 and §101.862(4)(a).. As a result, the residential property owner shall hire a licensed electrical contractor as required in 4-391 to obtain the license and permit and perform all electrical work for which the permit is issued.

Sec. 4-347. Reserved.

Sec. 4-348. Certificate of Inspection.

No Certificate of Inspection shall be issued for work regulated under this article unless the electric light, power or heating installation and all other electric apparatus connected with it are in strict conformity with the provisions of this article.

Sec. 4-349. ~~Exceptions to construction requirements.~~ Reserved

~~(a) Type NM or NMC nonmetallic sheathed cable shall not be used as the wiring method in buildings and structures other than single family and multifamily dwellings.~~

~~(b) All service entrance conductors shall be installed in a raceway.~~

Sec. 4-350. Review of condemnation order.

When the electrical inspector condemns all or part of the electrical installation in any building, the owner, within five (5) days after receiving written notice from the electrical inspector, may file a petition in writing for review of the action of the electrical inspector to the chairman of the Board of Building Inspection in accordance with § 4-26.

Sec. 4-351. Liability for defects in work.

This article shall not be construed to relieve from or lessen the responsibility or liability of any party owning, operating, controlling or installing or repairing any electrical equipment for damages to anyone injured or any property destroyed by any defect therein. The City and its elected or appointed officials shall not be held as assuming any liability by reason of this article, the inspection authorized in this article, or the certificate issued.

Secs. 4-352 – 4-390. Reserved.

DIVISION 2. LICENSE

Sec. 4-391. Required.

No person, either individually, as a member of a firm, or as an officer or employee of a corporation, shall conduct the business of electrical wiring, electrical construction or contracting, unless such person has a license as required by Wis. Stats. §101.862.

Sec. 4-392. Exemptions.

As allowed under Wis. Stats. §101.862(4)(a), a residential property owner may perform electrical work in his own dwelling which he owns and occupies without a license, with the exception of installing or replacing of service equipment, as long as the work is being conducted in a single family dwelling. Electrical work performed on a residential property which is not a single family owner occupied dwelling will need to be performed by a licensed electrical contractor. The owner of the property must procure a permit prior to starting any electrical work.

Secs. 4-393 – 4-415. Reserved.

DIVISION 3. PERMITS

Sec. 4-416. Application; issuance.

The Inspection Department shall issue permits for all electrical installations to the licensed electrical contractor in charge for light, heat or power upon filing of proper application, which shall be made on forms furnished by the Director. The permit application shall describe the nature of the work as well as such other information as may be required for inspection. Permits shall be issued prior to the start of any electrical work. No permit shall be required for repairs necessary for the proper maintenance of an existing installation, with the exception of service changes and panel/meter changes. Electrical permits are required for demolition of any part of an electrical system. The electrical inspector may require the applicant to furnish additional plans and specifications covering the work to be done in addition to the items that are required in (1) and (2) of this section.

(1) A photometric study: ~~For commercial and industrial projects~~ Where emergency lighting is required, modified or where exit paths have changed, a photometric plan is required. Illumination levels shall be noted on the study using the point-to-point method having a maximum spacing of two feet on center.

(2) Photovoltaic (PV) Systems: Requirements as listed in the "Photovoltaic System Permit Requirements" handout.

Sec. 4-417. Reserved.

Sec. 4-418. Electrical fees.

(a) Generally. Permit fees for the installation of wiring and electrical equipment shall be as provided in this section.

(b) One- and two-family dwellings. The amount of the permit fee for one- (1-) and two- (2-) family dwellings (new construction and additions) shall be on file in the Office of the City Clerk.

(c) Multiple-family buildings. The amount of the permit fee for multiple-family buildings (new construction and additions) shall be on file in the Office of the City Clerk.

(d) Commercial or industrial buildings. For commercial or industrial buildings (new construction and additions) and alterations to all existing commercial buildings, the amount of the permit fees shall be on file in the Office of the City Clerk.

(e) Change of service. The fee for change of service shall be on file in the Office of the City Clerk.

(f) Photovoltaic (PV) systems. The fee for a PV system shall be on file in the Office of the City Clerk.

(g) Penalty for commencing work without permit. The fee for installation of wiring or electrical equipment without a permit shall be triple the permit fee prescribed in this section when a permit is obtained. Payment of any fee mentioned in this subsection shall in no way relieve any person of the penalties that may be imposed for violation of this Article.

(h) Reinspection. A thirty-five dollar (\$35.00) call back inspection fee may be charged each time a reinspection is necessary due to failure to correct, faulty, defective or incomplete work identified during a prior inspection.

(i) Plan review. The fee for plan review shall be on file in the Office of the City Clerk.

(j) Data and Communication wiring. The fee for data and communication wiring shall be on file in the Office of the City Clerk.

Sec. 4-419. Use of license to obtain permit for another.

It shall be unlawful for any licensed electrical contractor or person with a master's license to allow the use of said license, directly or indirectly, for the purpose of obtaining local electrical permits for others.

Sec. 4-420. Temporary installations.

Upon applying for an electrical permit for temporary work, a specified period of time for which such wiring is to remain in service must be stated. Service shall be cut off at the end of this the time period as detailed in the state electrical code. ~~and shall not again be connected without written permission from the electrical inspector.~~ All exterior temporary electrical equipment and material shall be immediately removed from the property after the allowed time period. Any temporary electrical equipment or material left after the allowed time period may be considered construction debris and prohibited as a public nuisance.

Secs. 4-421 – 4-435. Reserved.

Swimming Pools

Sec. 4-546. Permits.

(c) Penalty for commencing work without a permit.

Failure to obtain a required plumbing, electrical, and building permits are subject to the penalties in §4-418(f) ~~(g)~~, §4-292(b) and §4-161(b).