

**ORDINANCE NO. 20200507-027**

**AN ORDINANCE REPEALING AND REPLACING ARTICLE 4 OF CITY CODE CHAPTER 25-12 TO ADOPT THE 2020 NATIONAL ELECTRICAL CODE AND LOCAL AMENDMENTS; AND CREATING OFFENSES AND PENALTIES.**

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF AUSTIN:**

**PART 1.** City Code Chapter 25-12 is amended to repeal Article 4 (*Electrical Code*) and replace it with a new Article 4 to read as follows:

**ARTICLE 4. ELECTRICAL CODE**

**§ 25-12-111 NATIONAL ELECTRICAL CODE.**

- (A) The National Electrical Code, 2020 Edition and Annex H (collectively “2020 Electrical Code”), published by the National Fire Protection Association are adopted and incorporated by reference into this section with the deletions in Subsection (B) and amendments in Section 25-12-113 (*Local Amendments to the 2020 Electrical Code – Administration and Enforcement*) and Section 25-12-114 (*Local Amendments to the 2020 Electrical Code – Technical*).
- (B) The following sections of the 2020 Electrical Code are deleted:

Section 80.2	Section 80.15	Section 80.19(C)
Section 80.19(D)	Section 80.19(E)	Section 80.21
Section 80.23(B)	Section 80.27	Section 80.35
Section 110.12	Section 230.70(A)	Section 310.110
Section 680.41		

- (C) The city clerk shall retain a copy of the 2020 Electrical Code with the official ordinances of the City of Austin.

## **§ 25-12-112 CITATIONS TO THE ELECTRICAL CODE.**

In the City Code, "Electrical Code" means the 2020 Electrical Code adopted and amended by Section 25-12-111 (*Electrical Code*), as amended by Section 25-12-113 (*Local Amendments to the 2020 Electrical Code - Administration and Enforcement*) and Section 25-12-114 (*Local Amendments to the 2020 Electrical Code – Technical*).

## **§ 25-12-113 LOCAL AMENDMENTS TO THE 2020 ELECTRICAL CODE – ADMINISTRATION AND ENFORCEMENT.**

The following provisions are local amendments to the 2020 Electrical Code. Each provision of this section is a substitute for any identically numbered provision of the 2020 Electrical Code deleted by Section 25-12-111(B) (*Electrical Code*) or is an addition to the 2020 Electrical Code:

**80.2 Definitions.** The following definitions apply to the Electrical Code.

**AGENT.** A person designated by an electrical contractor to obtain an electric permit on behalf of the electrical contractor. An agent must be the owner or an employee of the electrical contracting business.

**CHIEF ELECTRICAL INSPECTOR.** An electrical inspector who meets the requirements of Section 80.27 of the Electrical Code and is responsible for administering and implementing the Electrical Code.

**CITATION.** A document described in City Code Chapter 1-3 (*Citation Program*).

**CONTRACTOR.** A person who is an electrical contractor.

**ELECTRICAL CONTRACTOR.** A person licensed as an electrical contractor by the Texas Department of Licensing and Regulation (TDLR), engaged in electrical contracting, and registered with the City.

**ELECTRICAL CONTRACTING.** The business of designing, installing, erecting, repairing, maintaining, or altering electrical wires or conductors to be used for light, heat, power, or signaling purposes. The term includes the installation or repair of ducts, raceways, or conduits for the reception or protection of wires or conductors and the installation or repair of any electrical machinery, apparatus, or system used for electrical light, heat, power, or signaling.

**ELECTRICAL INSPECTOR.** An individual who meets the requirements of Section 80.27 and performs electrical inspections as required by the City.

**ELECTRICAL WORK.** Installing, altering, repairing, or erecting any electrical wiring apparatus, raceways, or equipment used in connection therewith, whether inside or outside of a building or structure, lot or premises, under the requirements of the Electrical Code.

**OFFER TO PERFORM.** A written or verbal communication, proposal, or advertisement that indicates or implies a person is available to contract for or perform electrical work

**REGISTRANT.** A person required to register with the City as set forth in Section 80.37 (*Registration*).

**REPLACEMENT.** The act or process to replace something of like design.

**RESIDENTIAL BUILDING OR STRUCTURE.** Single-family, two-family, and multi-family dwelling units of five stories or less in height and located in a residential zone.

**STATE ELECTRICAL CODE.** The National Electrical Code adopted by the Texas Department of Licensing and Regulation.

**TEXAS DEPARTMENT OF LICENSING AND REGULATION.** The state agency responsible for administering and enforcing Title 8, Chapter 1305 of the Texas Occupations Code and 16 Texas Administrative Code Chapter 73.

**WORKMANLIKE MANNER.** The standard established in Section 110.12 (*Mechanical Execution of Work*).

**80.15. Electric Board.** The Electric Board shall comply with City Code Chapter 2-1 (*Boards and Commissions*).

**80.19(C) Issuance of Permits.**

**(1) Standard Permits.**

- (a) Except as provided in Section 80.19(C)(5) (*Homestead Permit*), an applicant for an electrical permit must be an electrical contractor.
- (b) The building official is responsible for reviewing applications, plan specifications, and other data submitted by an applicant. Other departments may review the plans as necessary to verify compliance with applicable laws.
- (c) The building official must issue a permit to an applicant if:

- (i) the building official finds that the work described in the permit application and in the plans, specifications, and other support data submitted with the application conform to the requirements of the Electrical Code and other applicable laws and ordinances; and
  - (ii) the required fees have been paid.
- (d) A permit issued by the building official is not effective unless it includes a written statement that the plans and specifications were reviewed. In this section, a written statement means a stamp that reads “REVIEWED FOR CODE COMPLIANCE” and is placed on the plans and specifications.
- (e) After the permit is issued, a person may not change, modify, or alter plans and specifications without the approval of the building official.
- (f) Work regulated by the Electrical Code shall be done consistent with reviewed plans and specifications.
- (g) If a building, structure, or tenant finish out will exceed 5,000 square feet, a Professional Electrical Engineer licensed by the State of Texas must seal the required drawing.
- (h) If a building, structure, or tenant finish out is 5,000 square feet or less, a master electrician licensed by the Texas Department of Licensing and Regulation must sign the required drawing and include the master electrician’s license number or a Professional Electrical Engineer licensed by the State of Texas may seal the required drawing.
- (i) The building official may issue a permit for the construction of part of an electrical system before the plans and specifications for the entire system have been submitted or approved if the applicant provides adequate information and detailed statements that comply with the requirements of the Electrical Code. The electrical permit holder may proceed at the permit holder’s own risk, without assurance that the permit for the entire building, structure, or building service will be approved. The issuance of a permit for part of an electrical system does not obligate the building official to approve the remaining electrical permits.

**(2) Permit required.** Except as specified in Section 80.19(C)(3), a person who intends to install, alter, repair, replace, or remodel an electrical system must apply for and obtain a permit before the activity commences.

**(3) Exempt work.** Work that may be performed without an electrical permit must comply with all applicable federal, state, and local requirements. An electrical permit is not required:

- (a) to replace an approved cable or cord and plug connected to a motor or portable appliance;
- (b) to replace components of approved equipment or a fixed approved appliance of same type and rating, in the same location;
- (c) to install temporary holiday decorative lighting;
- (d) when the maximum voltage is 480 and the maximum ampacity is 30, to replace a snap, single, three-way, or four-way or dimmer switch, receptacle, ceiling paddle fan, or luminaire;
- (e) to reinstall a receptacle with a ground-fault circuit interrupter receptacle, a tamper-resistance receptacle, an arc-fault circuit interrupter receptacle, or weather-resistance receptacle;
- (f) when the service will not be de-energized, to replace an overcurrent protection device or fuse of same voltage and amperage and in the same location;
- (g) to repair or replace an electrode or transformer of the same size and capacity for a sign or gas tube system;
- (h) to replace insulating material to a splice;
- (i) to remove electrical and communication wiring;
- (j) to install temporary wiring for experimental purposes in a suitable experimental laboratory;
- (k) to install wiring for a temporary theater, motion picture, or television stage set;
- (l) to install or repair an electrical device, appliance, apparatus, equipment, or electrical wiring operating at less than 25 volts and not capable of supplying more than 50 watts of energy;

- (m) to install or repair a low-energy power, control and signal circuit of Class II or Class III as defined in the 2020 Electrical Code;
- (n) for the following activities, if performed in connection with the transmission of electrical energy: to install, alter, or repair electrical wiring, apparatus, equipment, or the generation, transmission, distribution, or metering of electrical energy;
- (o) to operate signals or to transmit intelligence by a public or private utility in the exercise of its function as a serving utility; or
- (p) except for activities related to electrical service, for electrical work in a building or structure owned and occupied by the State of Texas or the federal government.

**(4) Emergency repair permits.** An applicant who seeks a permit to make emergency electrical repairs on non-exempt work must identify the emergency on the permit application.

**(5) Homestead permit.**

- (a) A person who is not licensed to perform electrical work may perform electrical work under a homestead permit if:
  - (i) the residence is the person's homestead and principal residence;
  - (ii) the electrical work does not include the main electric system;
  - (iii) the person has not secured a homestead permit for another residence within the prior 12 month period;
  - (iv) the person has owned and occupied the property as of January 1 of the tax year in which the person applies for a homestead permit;
  - (v) the person applies for a homestead permit in person and files an affidavit stating that the location where the work will be done is the person's homestead;
  - (vi) the person obtains a homestead permit and pays any required permit fees before electrical, mechanical, or plumbing work begins;
  - (vii) the person does not allow or cause another person to perform electrical work under the permit;

- (viii) the person does not transfer the homestead permit to another person;
  - (ix) the person will present a picture identification to the building official to verify that the person is authorized to perform the work under the homestead permit; and
  - (x) the work that will be done is not for a mobile, modular, or manufactured home unless the person owns the land on which the mobile, modular, or manufactured home is located.
- (b) A homestead permit cannot be issued for a mobile, modular, or manufactured home located in a mobile home park, mobile home community, or other commercial premises.
- (c) The building official may suspend or revoke a homestead permit if the work done under the homestead permit is performed by anyone other than the person who obtained the homestead permit.

**80.19(D) Annual permit.** Electrical work may be performed in a facility participating in the registered industrial plan program under an annual permit issued pursuant to Section 105.1.1 (*Annual Permit*) of the Building Code.

**80.19(E) Permit fees.** The fee for a permit is set by separate ordinance.

**80.19(H) Time limitation on application; permit expiration and reactivation.** The time limits for applications and the requirements for permit expiration and reactivation, including a fee for expired permits, are established in Chapter 25-12, Article 13 (*Administration of Technical Codes*).

**Exception.** An annual permit is valid for 360 consecutive days from the date the permit is issued and may not be extended.

**80.19(I) Special inspections program.** Electrical work may be performed under this program in occupied residential and commercial buildings or structures within the zoning jurisdiction of the City. The program requirements and scope are:

- (1) A contractor who participates in this program must:
- (a) for each permit, submit a completed compliance form to the building official no later than one business day after the permitted electrical work is complete; and
  - (b) obtain a permit as required by Section 80.19(C)(2) no later than one business day from the work start date.

(2) The scope of work may not:

- (a) include the disconnection, reconnection, or repair of an electrical service;
- (b) involve the penetration of a fire rated wall or component;
- (c) require an electrical rough inspection; or
- (d) include more than one stand-alone electrical or other permit.

(3) As part of the program, the building official may inspect the electrical work performed for one out of five residential permits and one out of ten commercial permits. As a condition of the program, the electrical contractor must provide access to the permitted work.

(4) Nothing in this section limits the building official's authority to inspect electrical work when the building official deems necessary to determine that the electrical work performed under this program complies with the Electrical Code.

**80.21 Plan review fees.** The fee for plan review is set by separate ordinance.

**80.27 Inspector's Qualifications.** An electrical inspector must be certified by a nationally recognized certification program and meet the qualifications set forth in a city-job description that is acceptable to the Electrical Board.

**80.35 Authority to Enforce State Electrical Code.** The building official may enforce the state electrical code when necessary.

**80.36 Licenses.**

**80.36(A) License required.** Except as allowed in Subsection 80.19(C)(5) (*Homestead Permit*), a person must be licensed by the Texas Department of Licensing and Regulations to perform electrical work within the City or at a site that receives electric utility services from the City.

**80.36(B) License display.** When performing electrical work, a licensee shall keep his or her license in possession and shall display the license upon request of the building official or the owner of the premises or property where the licensee is working, offering to work, or has worked. A licensee shall also present a picture identification to verify identity.



**80.36(C) Contractor.** To establish an electrical contracting business within the City's full purpose jurisdiction, a person must be licensed as an electrical contractor and comply with Section 80.37 (*Registration*).

**80.36(D) Temporary staffing companies.** An employee who is licensed, registered, or certified by the Texas Department of Licensing and Regulations and is assigned to a client company by a professional temporary staffing company is considered an employee of the client company for the purpose of complying with the requirement to hold an electrical contracting license.

**80.37 Registration.**

- (A) **Registration Required.** Before a person may perform or offer to perform electrical contracting services within the City, the person must register with the City.
- (B) **Eligibility Requirements.** A person is eligible to register with the City if:
  - (1) the person is licensed as an electrical contractor;
  - (2) the person designates an electrician of record; and
  - (3) the electrician of record appears in person when the electrical contracting business is registered.
- (C) **Electrician of Record.**
  - (1) The electrician of record may be the same as the registrant.
  - (2) The electrician of record must be licensed by the Texas Department of Licensing and Regulations as a master electrician.
  - (3) The electrician of record may not be designated as the electrician of record for more than one electrical contractor business.
- (D) **Employees and Agents of Registrant.**
  - (1) An employee of a registrant may perform electrical work that is associated with an electrical permit issued to the registrant.
  - (2) The maximum number of agents who may obtain electrical permits on behalf of the registrant is six.

**(E) Vehicle Display Requirements.**

- (1) A registrant shall display its name and license number on each vehicle owned or operated by the registrant's business and used to perform electrical contracting services.
- (2) Each display shall satisfy the requirements set forth in Section 1305.166 of the Texas Occupations Code and Section 73.51 of Title 16 of the Texas Administrative Code.
- (3) A vehicle described in Subsection (E)(1) may not be used for more than one electrical contracting business.

**(F) Offense.** A person commits an offense if the person engages in electrical contracting without a registration required by this section.

**80.38 Suspension of Registration.**

- (A) Except as provided in Subsection (B), the building official may suspend a registration after three substantiated violations of Section 80.39 (*Offenses*) within a 12-month period.
- (B) The building official may suspend a registration after one substantiated violation of Section 80.39(A)(2), (A)(9), (A)(15), or (A)(19) by the registrant or its employees
- (C) The suspension period ends:
  - (1) six months from the date the suspension begins for the first suspension; or
  - (2) 12 months from the date the suspension begins for a suspension that is not the first suspension.
- (D) A registrant may appeal a suspension as set forth in Section 25-1-461 (*Appeal*).
- (E) A suspension under this section is not an exclusive remedy for a violation of Section 80.39.

**80.39 Offenses.**

- (A) A person may not:
  - (1) allow another to use an electrical permit in an unlawful or fraudulent manner;

- (2) perform, or cause to be performed, electrical work that causes injury to a person or property;
- (3) supervise, perform, or cause to be performed electrical work that does not comply with the supervision requirements in the Electrical Code;
- (4) perform electrical work without the required license or permit classification;
- (5) display, cause to be displayed, allow to be displayed, or possess a document that purports to be a license to perform electrical work that is false, expired, suspended, or altered;
- (6) fail or refuse to display a license or permit to perform electrical work when requested by the building official;
- (7) allow a person, other than the person to whom the license was issued, to perform electrical work;
- (8) contract for, or cause to be performed, electrical work that requires a permit by a person who lacks a license required by the Electrical Code;
- (9) employ a person who is not licensed as a master electrician or electrical contractor, journeyman electrician, residential wireman, or apprentice electrician to perform electrical work that requires an electrical license;
- (10) request the building official to perform inspections of work that is incomplete or work that has not been properly reviewed by the permit holder or the designated supervisor three or more times during a 12 month period;
- (11) employ a person to perform electrical work for which the person is not qualified;
- (12) supervise a person who is performing electrical work for which the person performing the work is not qualified to perform;
- (13) obtain a permit for a business or person other than the business or person identified on the person's electrical contractor's license;

- (14) perform electrical work under a permit for a business other than the business identified on the permit authorizing the electrical work;
  - (15) perform, or cause to be performed, electrical work in a manner that endangers a person or property;
  - (16) fail to provide notification for a change of business address, qualifying master electrician, or contact information included on the electrical contractors license on or before the 10<sup>th</sup> day after the change occurs;
  - (17) refuse to provide picture identification when requested by the building official;
  - (18) fail to comply with the requirements of the Electrical Code; or
  - (19) allow more than five electrical permits to expire.
- (B) The building official may report offenses to the Texas Department of Licensing and Regulation.

**80.40 Supervision.**

- (A) At least one licensed journeyman electrician, licensed master electrician, or licensed residential wireman shall be present on a site to supervise the electrical work being performed.
- (B) A contractor who is responsible for the electrical work being performed shall provide fulltime supervision, management, direction, and control. A residential wireman may only supervise residential projects.
- (C) The ratio of licensed master electrician, licensed journeyman electrician, or residential wireman to licensed apprentice electricians may not exceed one licensed master electrician, licensed journeyman electrician, or residential wireman to five licensed apprentice electricians.
- (D) The designated supervisor shall review the electrical work before submitting a request for the building official to inspect.

**Section 80.41 Special Requirements for Installations Below Regulatory Flood Datum.**

- (A) For purposes of this section, regulatory flood datum (RFD) has the meaning assigned in Section 1612 (*Flood loads*) of the Building Code.

- (B) If a circuit can be de-energized by automatic operating electrical disconnection equipment, then a lighting circuit, switch, receptacle, or luminaire that operates at no more than 120 volts to ground may be installed below the RFD. The electrical circuit shall be de-energized before water is present on the floor of the affected areas. If any equipment is flooded, its particular circuit may not be re-energized until the circuit and the equipment are:
- (1) approved by the wiring and equipment manufacturer for reuse after being submerged in water; or
  - (2) replaced and approved for use by the building official.
- (C) Except for a switch, receptacle, and luminaire, all other electrical equipment permanently installed below the RFD shall be rated by the equipment manufacturer for submergence for at least 72 hours for a head of water above the equipment to the RFD.
- (D) An electrical wiring system installed below the RFD shall be suitable for continuous submergence in water. Only a submersible splice is allowed below the RFD. A conduit located below the RFD shall be installed so that it can be self-draining if subject to flooding.
- (E) The electrical power equipment and components of an elevator system shall be located above the RFD. An automatic type elevator shall be provided with a home station located above the RFD to which the elevator will automatically return after use.
- (F) An electrical unit heater installed below the RFD shall be capable of being disconnected as outlined in Subsection (B). An electrical control on a gas or oil furnace located below the RFD may not exceed 120 volts to ground and the control circuits shall be automatically de-energized before water is present on the floor of the affected area.
- (G) Sump pumping equipment of any type shall be provided with a float operated warning alarm that acts independently of any other float actuating device used to start and stop pumping equipment. A building or structure that utilizes sump pumping equipment shall have automatic starting standby electrical generating equipment located above the RFD. The standby generating equipment shall be capable of remaining in continuous operation at 125 percent of the anticipated duration of the design flood.

- (H) A control center, privately owned transformer, distribution and main lighting panel, and switchgear, in addition to other stationary equipment, shall be located above the RFD. Portable or moveable electrical equipment may be located below the RFD if the equipment can be disconnected by a single plug or socket assembly of the submersible type and rated for a minimum of 72 hours for the head of water above the assembly to the RFD.
- (I) All components of emergency lighting systems installed below the RFD shall be located so that a component of the emergency lighting system is not within reach of personnel working at floor level in the area where an emergency lighting system is used unless the emergency lighting circuit(s) are provided with ground-fault circuit interrupters having a maximum leakage current to ground sensitivity of 5 milliamperes.
- (J) Before the building official can release electrical utilities or issue a certificate of occupancy, the building official must verify that all incoming main city power service equipment, including all metering equipment, is located two feet above RFD.

#### **80.42 Other Applicable City Code and Criteria Manual Requirements.**

When applicable, an electrical installation shall also comply with:

- (1) Chapter 25-2, Subchapter C, Article 13 (*Docks, Bulkheads, and Shoreline Access*);
- (2) Building Criteria Manual, Section 5.2.4 (*Wiring Over and Under Navigable Water*);
- (3) Building Criteria Manual, Section 5.2.10 (*Subchapter E, Section 2.5, Exterior Lighting Rules for Alternative Equivalent Compliance*); and
- (4) Building Criteria Manual, Section 4.4.7 (*Visitability*).

#### **§ 25-12-114 LOCAL AMENDMENTS TO THE 2020 ELECTRICAL CODE – TECHNICAL.**

The following provisions are local amendments to the 2020 Electrical Code. Each provision of this section is a substitute for any identically numbered provision of the 2020 Electrical Code deleted by Section 25-12-111(B) (*Electrical Code*) or is an addition to the 2020 Electrical Code:

**110.12 Mechanical Execution of Work.** Neat and workmanlike. All electrical work shall be installed in a neat and workmanlike manner. In the Electrical Code, workmanlike manner means, but is not limited to, the following:

1. work that is skillfully installed consistent with the Electrical Code's requirements;
2. equipment, raceways, and cables are installed parallel or perpendicular to the building or structure's structural members;
3. when raceways or cables are grouped, the raceways and cables remain straight, parallel, or perpendicular to the building or structure's structural members;
4. each cable is cut to a length that prevents sagging or looping, except when flexibility requires moderate sagging; and
5. each box, cabinet, enclosure, and device is installed level, parallel, or perpendicular to the building or structure's structural members.

**230.70(A) Service Disconnecting Means Location.**

(1) Except as provided in Subsection (A)(2), the service disconnecting means shall be installed at a readily accessible location that is located outside of a building or structure.

(2) The service disconnecting means may be installed at a readily accessible location that is located:

- (a) inside of a building or structure that is not a one- or two-family dwelling;
- (b) at the nearest point of entrance to the service conductors;
- (c) on a direct path that 25-feet or less from an exterior entrance; and
- (d) is first floor accessible from an exterior entrance inside of a building or structure.

(3) A service disconnecting means may not be installed in a bathroom.

**250.68(A)(1) Concrete encased electrode accessibility.** Concrete encased electrode accessibility for the electric utility district (EUD) locations (having no wall rough-in inspection) shall require a grounding inspection port for termination of the grounding electrode conductor.

**310.110(C)(1) Conductor Identification.**

Color coding of conductors shall be consistent throughout each system and identified as follows:

(1) single phase 120/240 volt wiring system

(A) (B) (N)  
RED-----BLACK-----WHITE

(2) three phase four wire 120/208 volt wiring system

(A) (B) (C) (N)  
RED-----BLACK---BLUE---WHITE

(3) Three phase three, and four wire 120/240 volt delta wiring systems.

(A) (B) (C) (N)  
RED-----ORANGE---BLACK---WHITE

(4) 277/480 wye or 480 volt delta wiring systems.

(A) (B) (C) (N)  
BROWN-----YELLOW---PURPLE-----GRAY

**680.13(1) Emergency switch for swimming pools.** A clearly labeled emergency shutoff switch shall be installed to disconnect all ungrounded conductors for swimming pool equipment and underwater lighting systems. The switch shall be installed in a place that is readily accessible, within sight, and not less than five feet from the water's edge. The sign for the shut-off switch shall be capable of being read from a distance of 50 feet; shall be made of plastic, metal, or other durable material; and shall read "Emergency Shut Off".

**Exception:** One- and two-family dwellings.

**680.41 Emergency shut-off for spas and hot tubs.**

(A) A clearly labeled emergency shutoff switch shall be installed to disconnect all ungrounded conductors for spa or hot tub equipment and underwater lighting systems. The switch shall be installed in a place that is readily accessible, within sight, and not less than five feet from the water's edge.



(B) The sign for the shut-off switch shall be capable of being read from a distance of 50 feet; shall be made of plastic, metal, or other durable material; and shall read "Emergency Shut Off".

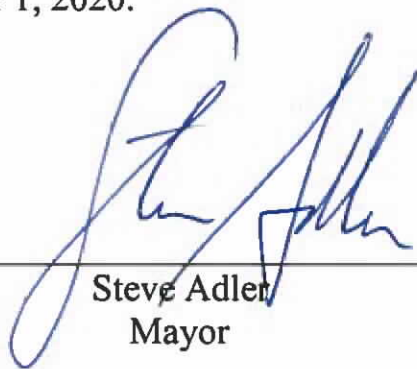
**Exception:** One- and two-family dwellings.

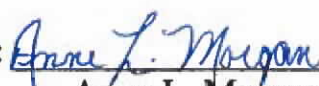
**PART 2.** This ordinance takes effect on September 1, 2020.

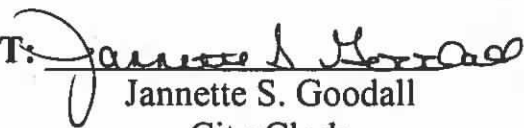
**PASSED AND APPROVED**

May 7, 2020

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Steve Adler  
Mayor

**APPROVED:**   
Anne L. Morgan *by: Thomas*  
City Attorney

**ATTEST:**   
Jannette S. Goodall  
City Clerk