

FREEBURG FIRE PROTECTION DISTRICT

Ordinance No. 26-235

AN ORDINANCE ADOPTING THE INTERNATIONAL FIRE CODE (IFC), 2024 EDITION, FOR THE FREEBURG FIRE PROTECTION DISTRICT

WHEREAS, the Freeburg Fire Protection District (District) is a public fire protection district organized under and governed by the Illinois Fire Protection District Act (70 ILCS 705/0.01 et seq.); and

WHEREAS, the Freeburg Fire Protection District provides public fire protection services to the residents and property owners in the District; and

WHEREAS, the 2024 Edition of the International Fire Code ("IFC") is a nationally recognized fire code and standard; and

WHEREAS, the Board of Trustees of the Freeburg Fire Protection District has determined that the proper regulation and prevention of fire requires that the Freeburg Fire Protection District adopt the 2024 Edition of the International Fire Code; and

WHEREAS, the County of St. Clair has or soon will adopt the International Building Code, 2024 Edition which will be consistent with the International Fire Code, 2024 Edition.

WHEREAS, Section 11 of the Illinois Fire Protection District Act (70 ILCS 701/11) empowers the Board of Trustees of the District to provide as nearly adequate protection from fire for all persons and property within the District as possible, to prescribe necessary regulations for the prevention and control of fire therein, and to adopt and enforce fire prevention codes and standards parallel to national standards; and

WHEREAS, the Municipal Adoption of Codes and Records Act (50 ILCS 220/1, et seq.), and specifically Section 2 thereof, authorizes fire protection districts to adopt by reference the provisions of any code or portions of a code without setting forth the provisions of such codes in full provided that at least three (3) copies of such code are filed in the District office and kept there for public use, inspection, and examination; and

WHEREAS, Section 6 of the Illinois Fire Protection District Act (70 ILCS 705/6) authorizes the board of trustees of a fire protection district to pass all necessary ordinances, and rules and regulations for the proper management and conduct of the business of the Board of Trustees for carrying into effect the objects for which the District was formed; and

WHEREAS, the Freeburg Fire Protection District Board of Trustees has determined that the health, safety, and welfare of the citizens of the Freeburg Fire Protection District will be promoted and safeguarded by adopting a nationally organized fire code in addition to the NFPA 101 Life Safety Code, 2024 Edition, which is in effect pursuant to Ordinance No. 26-231 of the Freeburg Fire Protection District which has adopted the Life Safety Code, NFPA 101 to regulate the Construction, Use, and Occupancy of Buildings and Structures in the Freeburg Fire Protection District.

NOW, THEREFORE, THE PREMISES CONSIDERED, BE IT ORDAINED AND ENACTED, by the Board of Trustees of Freeburg Fire Protection District as follows:

Section 1. – INCORPORATION OF RECITALS

The recitals set forth above are expressly incorporated herein.

Section 2. – PURPOSE

The Board of Trustees of Freeburg Fire Protection District has determined that the health, welfare, and safety of the citizens of the Freeburg Fire Protection District will be promoted by adopting and enforcing The International Fire Code, 2024 Edition.

Section 3 – ADOPTION OF THE INTERNATIONAL FIRE CODE, 2024 EDITION

The Board of Trustees of Freeburg Fire Protection District hereby adopts The International Fire Code, 2024 Edition.

Section 4 – MODIFICATIONS OF THE INTERNATIONAL FIRE CODE, 2024 EDITION

The Board of Trustees of Freeburg Fire Protection District hereby deems it advisable and in the best interests of the public to modify certain provisions of The International Fire Code, 2024 Edition, as adopted by this Ordinance, in a manner consistent with those modifications found in the attached **Exhibit A**.

Section 5 – ENFORCEMENT OF THE INTERNATIONAL FIRE CODE, 2024 EDITION

The Board of Trustees of Freeburg Fire Protection District hereby authorizes the Fire Chief of Freeburg Fire Protection District to enforce such rules as prescribed by The International Fire Code, 2024 Edition, as adopted by this Ordinance, in accordance with 70 ILCS 705/11m, and the administrative procedures set out in Exhibit A of this Ordinance, as each of them may be collectively or individually applicable. The enforcement of this Code, however, shall not apply to the extent that any municipality (city or village) in the jurisdictional territory of the District has adopted a fire code.

Section 6 – CONFLICT

The specific terms and conditions of this Ordinance shall prevail against other existing ordinances of the District to the extent there might be any conflict, provided, however, that in the event of any conflict between the provisions of NFPA 101 Life Safety Code, 2024 Edition, as previously adopted by Board of Trustees of the Freeburg Fire Protection District by Ordinance No. 26-231, the provisions of the NFPA 101 Life Safety Code 2024 Edition will control.

Section 7 – PENALTY FOR VIOLATION

Any person, entity, or corporation who violates any provision of this ordinance or who fails to comply with any order issued by the Freeburg Fire Protection District Fire Chief or the said Chief's authorized delegate or deputy in connection with the enforcement of this ordinance, or who fails to comply with any Section hereof shall be guilty of a petty offense and may be fined not less than \$75.00 and no more than \$750.00 with each day that such offense continues to constitute a separate offense.

Section 8 – COPIES ON FILE

At least three (3) copies of The International Fire Code, 2024 Edition, as adopted and incorporated herein by reference, will be placed on file with the District and will be kept available for public use, inspection, and examination. Additionally, the three copies will be on file with the District for a period of at least fifteen (15) days prior to the adoption of this ordinance incorporating and adopting The International Fire Code, 2024 Edition by reference.

Section 9 – AMENDMENTS AND REVISIONS

The District's Fire Prevention Code may be revised by the Board of Trustees by approval of additional exhibits hereto which amend the current Exhibit A. All such revisions shall be dated and shall be effective upon approval by the Board of Trustees.

Section 10 – REPEALER

All other ordinances of the Freeburg Fire Protection District in conflict with the provisions of this ordinance are hereby repealed.

Section 11 – SEVERABILITY

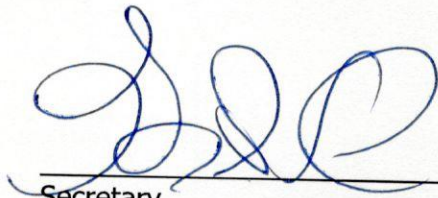
Should any part or provision of this ordinance be found by a Court of competent jurisdiction to be invalid or unenforceable, that determination shall not affect the remaining provisions of this ordinance.

Section 12 – EFFECTIVE DATE

This ordinance shall take effect from and after its passage, approval, and publication as may be required by law.

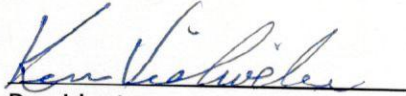
PASSED by the Board of Trustees of the Freeburg Fire Protection District this 20th day of August, 2026 and filed with the Secretary of the Board of Trustees of the Freeburg Fire Protection District the same date.

Ayes: 3 Nays: 0



Secretary
Board of Trustees
Freeburg Fire Protection District

Approved:



President
Board of Trustees
Freeburg Fire Protection District

Date: August 20, 2026

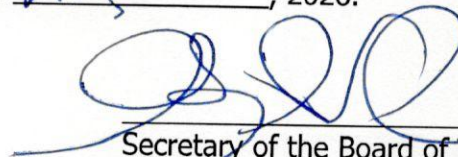
CERTIFICATE

The undersigned Secretary of the Board of Trustees of the Freeburg Fire Protection District, a Fire Protection District organized and existing under the laws of the State of Illinois, certifies that on the day and date hereof, he was the duly appointed, acting and qualified Secretary of the said Fire Protection District; that in his capacity as Secretary he is the official keeper of the records, minutes and resolutions of the said Fire Protection District; and that the document attached hereto is a true and correct copy of an Ordinance entitled:

**AN ORDINANCE ADOPTING THE INTERNATIONAL FIRE CODE (IFC),
2024 EDITION, FOR THE FREEBURG FIRE PROTECTION DISTRICT**

the original of which is part of the official records of the said Freeburg Fire Protection District.

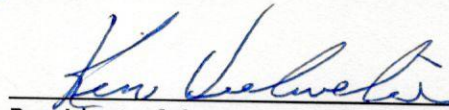
Dated this 20th day of August, 2026.



Secretary of the Board of Trustees
of the Freeburg Fire Protection District

The undersigned certifies that on the day and date hereof, he was the duly appointed, qualified and acting President of the Freeburg Fire Protection District; that on the day and date hereof GREG VOGEL was the duly appointed, qualified and acting Secretary of the Freeburg Fire Protection District and in such capacity was the keeper of the official records, minutes and resolutions of the said Fire Protection District.

Dated this 20th day of August, 2026.



President of the Board of Trustees
of the Freeburg Fire Protection District

EXHIBIT A

Modifications To The Provisions Of The International Fire Code, 2024 Edition:

Section 101 is deleted in its entirety as being duplicative of the provisions of the Freeburg Fire Protection District Ordinance 26-235.

Section 103 is deleted in its entirety and replaced with the following:

Administrative Provisions

Section 103

Fire Code Official

General. The Fire Chief of the Freeburg Fire Protection District is designated as the *fire code official* of the District and shall have overall authority for the administration and enforcement of this fire code and the NFPA Life Safety Code as previously adopted by Ordinance No. 26-231.

Deputies. The Board of Trustees may appoint such deputy fire code officials as it shall determine, including, but not limited to, technical officers, inspectors, and other employees to assist the Fire Chief in carrying out the administration and enforcement of this fire code.

Section 104 is deleted in its entirety and replaced with the following:

General Authority And Responsibilities

Section 104

GENERAL AUTHORITY AND RESPONSIBILITIES

General. The *fire code official* is hereby authorized to enforce the provisions of this code. The *fire code official* shall have the authority to render interpretations of this code and to adopt policies, procedures, rules, and regulations in order to clarify the application of its provisions. Such interpretations, policies, procedures, rules, and regulations shall be in compliance with the intent and purpose of this code. Such policies, procedures, rules, and regulations shall not have the effect of waiving requirements specifically provided for in this code, provided, however that such interpretations, policies, procedures, rules, and regulations shall be subject to the review and approval of the Board of Trustees of the Freeburg Fire Protection District.

Applications and permits. The *fire code official* is authorized to receive applications, review *construction documents* and issue permits for construction regulated by this code, inspect the premises for which such permits have been issued and enforce compliance with the provisions of this code.

Right of entry. Where it is necessary to make an inspection to enforce the provisions of this code, or where the *fire code official* has reasonable cause to believe that there

exists in a building or on any premises any conditions or violations of this code that make the building or premises unsafe, dangerous or hazardous, the *fire code official* shall have the authority to enter the building or premises at all reasonable times to inspect or to perform the duties imposed on the *fire code official* by this code. If such building or premises is occupied, the *fire code official* shall present credentials to the occupant and request entry. If such building or premises is unoccupied, the *fire code official* shall first make a reasonable effort to locate the *owner*, the owner's authorized agent or other person having charge or control of the building or premises and request entry. If entry is refused, the *fire code official* has recourse to every remedy provided by law to secure entry.

Identification. The *fire code official* shall carry proper identification when inspecting structures or premises in the performance of duties under this code.

Notices and orders. The *fire code official* is authorized to issue such notices or orders as are required to effect compliance with this code.

Official records. The *fire code official* shall keep official records as required by this Code. Such official records shall be retained for as long as required by the Local Records Act (50 ILCS 205/1 et seq.) and as long as the structure or activity to which such records relate remains in existence, unless otherwise provided by other regulations.

Approvals. A record of approvals shall be maintained by the *fire code official* and shall be available for public inspection during business hours in accordance with applicable laws.

Inspections. The *fire code official* shall keep a record of each inspection made, including notices and orders issued, showing the findings and disposition of each.

Fire records. The fire department shall keep a record of fires occurring within its jurisdiction and of facts concerning the same, including statistics as to the extent of such fires and the damage caused thereby, together with other information as required by the *fire code official*.

Administrative. Application for modification, alternative methods or materials and the final decision of the *fire code official* shall be in writing and shall be officially recorded in the permanent records of the *fire code official*.

Approved materials and equipment. Materials, equipment, and devices *approved* by the *fire code official* shall be constructed and installed in accordance with such approval.

Material and equipment reuse. Materials, equipment, and devices shall not be reused or reinstalled unless such elements have been reconditioned, tested, and placed in good and proper working condition and *approved*.

Technical assistance. To determine the acceptability of technologies, processes, products, facilities, materials and uses attending the design, operation or use of a building or premises subject to inspection by the *fire code official*, the *fire code official* is authorized to require the *owner* or owner's authorized agent to provide, without charge to the District,

a technical opinion and report. The opinion and report shall be prepared by a qualified engineer, specialist, laboratory, or fire safety specialty organization acceptable to the *fire code official* and shall analyze the fire safety properties of the design, operation, or use of the building or premises and the facilities and appurtenances situated thereon, to recommend necessary changes. The *fire code official* is authorized to require design submittals to be prepared by, and bear the stamp of, a registered design professional.

Modifications. Where there are practical difficulties involved in carrying out the provisions of this code, the *fire code official* shall have the authority to grant modifications for individual cases, provided that the fire code official shall first find that a special individual reason makes the strict letter of this code impractical and the modification is in compliance with the intent and purpose of this code and that such modification does not lessen health, life and fire safety requirements. The details of action granting modifications shall be recorded and entered in the files of the department of fire prevention.

Liability. The Fire Chief, as the *fire code official*, and all deputy fire code officials, technical officers, inspectors, and other employees assisting in the administration of this code shall be entitled to the benefit of all immunities from liability afforded by the Local Governmental and Governmental Employees Tort Immunity Act (745 ILCS 10/1-101 et seq.) as now or hereafter in effect.

Alternative materials, design and methods of construction and equipment. The provisions of this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been *approved*. An alternative material, design, or method of construction shall be approved where the *fire code official* finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and complies with the intent of the provisions of this code, and that the material, method, or work offered is, for the purpose intended, not less than the equivalent of that prescribed in this code in quality, strength, effectiveness, *fire resistance*, durability, and safety. Where the alternative material, design, or method of construction is not approved, the *fire code official* shall respond in writing, stating the reasons why the alternative was not approved.

Research reports. Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this code, shall consist of valid research reports from *approved* sources.

Tests. Where there is insufficient evidence of compliance with the provisions of this code, or evidence that a material or method does not conform to the requirements of this code, or in order to substantiate claims for alternative materials or methods, the *fire code official* shall have the authority to require tests as evidence of compliance to be made without expense to the jurisdiction. Test methods shall be as specified in this code or by other recognized test standards. In the absence of recognized and accepted test methods, the approval of the *fire code official* of the testing procedures shall be required. Tests shall be performed by an *approved* agency. Reports of such tests shall be retained by the *fire code official* for the period required for retention of public records.

Fire investigations. Consistent with the provisions of the Fire Investigation Act (426 ILCS 26/0.01 et seq.), the *fire code official*, the fire department or other responsible authority shall have the authority to investigate the cause, origin, and circumstances of any fire, explosion, or other hazardous condition. Information that could be related to trade secrets or processes shall not be made part of the public record, except as directed by a court of law.

Authority at fires and other emergencies. The Fire Chief or officer of the fire department in charge at the scene of a fire or other emergency involving the protection of life or property, or any part thereof, shall have the authority to direct such operation as necessary to extinguish or control any fire, perform any rescue operation, investigate the existence of suspected or reported fires, gas leaks or other hazardous conditions or situations, or take any other action necessary in the reasonable performance of duty. In the exercise of such power, the Fire Chief is authorized to prohibit any person, vehicle, vessel or thing from approaching the scene, and is authorized to remove, or cause to be removed or kept away from the scene, any vehicle, vessel or thing that could impede or interfere with the operations of the fire department and, in the judgment of the Fire Chief, any person not actually and usefully employed in the extinguishing of such fire or in the preservation of property in the vicinity thereof.

Barricades. The Fire Chief or officer of the fire department in charge at the scene of an emergency is authorized to place ropes, guards, barricades, or other obstructions across any street, alley, place, or private property in the vicinity of such operation so as to prevent accidents or interference with the lawful efforts of the fire department to manage and control the situation and to handle fire apparatus.

Obstruction operations. Persons shall not obstruct the operations of the fire department in connection with extinguishment or control of any fire, or actions relative to other emergencies, or disobey any lawful command of the fire chief or officer of the fire department in charge of the emergency, or any part thereof, or any lawful order of a police officer assisting the fire department.

Systems and devises. Persons shall not render a system or device inoperative during an emergency unless by direction of the fire chief or fire department official in charge of the incident.

Section 108 is deleted in its entirety and replaced with the following:

Section 108

Fees shall be required, and administered as provided in Section 107 of The International Fire Code, 2024 Edition and as set out in a resolution or ordinance of the Board of Trustees of the Freeburg Fire Protection District adopted from time to time. Any fee schedule adopted by the Board of Trustees shall be published one time prior to taking effect in a newspaper of general circulation in the District and on any website maintained by the District, if any.

Section 112 is deleted in its entirety and replaced with the following:

Means Of Appeals

Section 112

The Board of Trustees of the Freeburg Fire Protection District shall act as a Board of Appeals to hear and decide appeals of orders, decisions, or determinations made by the *fire code official* regarding the application, interpretation, administration, and enforcement of this code unless and until such time as the Board of Trustees creates and establishes a separate Board of Appeals by resolution of ordinance of the Board of Trustees. The fire code official will serve as an *ex officio* member without the vote of any separate Board of Appeals established by the Board of Trustees.

The Board of Trustees or any separate Board of Appeals established by the Board of Trustees may adopt rules of procedure for conducting its business, including, but not limited to, the manner of and time limit for the filing of any appeal. All decisions of the Board of Appeals shall be issued in writing to the appealing party and the *fire code official*.

The Board of Appeals shall have the authority to render a decision based on a claim that the intent or provisions of this code or the rules legally adopted pursuant to it have been incorrectly interpreted, or improperly applied or that a proposed equivalent method of protection or safety meets the requirements of the code. The Board of Appeals will not have authority to waive the requirements of this code.

If a separate Board of Appeals is established by the Board of Trustees, the members of that Board shall consist of persons who are qualified by experience and training to pass on matters which are the subject of this code. Such members shall not be employees of the Freeburg Fire Protection District. Such members may be compensated by the District as determined by the District Board of Trustees from time to time.

The Board of Appeals, if established as a separate body, will be subject to and will conduct its business in accordance with the provisions of the Open Meetings Act (5 ILCS 120/1 et seq.), the Freedom of Information Act (5 ILCS 140/1 et seq.), and the Local Records Act (50 ILCS 205/1 et seq.) as well as all other laws and regulations applicable to governing bodies of units of local government in Illinois.

Section 113.3 and Section 113.4 are revised as follows:

Violations

Section 113

Section 113.3 is revised to read as follows:

Section 113.3 Notice of Violation(s); Fire Code Inspection Procedures.

(a) Initial Inspection. Whenever the *fire code official* observes an apparent or actual violation(s) of a provision of the Code, the *fire code official* shall note and record

the violation(s). The *fire code official* shall then make every attempt to notify the occupant, owner, or responsible party of the violation(s), and recommendations for repairing the violation(s) to comply with the *fire code official*. These recommendations will contain appropriate time limits for the corrections to be completed. Most violations will be granted a 28 calendar day timeframe for correction.

(b) Initial Re-inspection. Most violations will be granted a 28 calendar day timeframe for correction. After such time, the *fire code official* shall perform a re-inspection to ensure that the violation(s) have been remedied. If any violation(s) are still present, the *fire code official* shall note and record the violation(s). The *fire code official* shall then make every attempt to notify the occupant, owner, or responsible party of the violation(s), and recommendations for repairing the violation(s) to comply with the *fire code*. These recommendations will contain appropriate time limits for the corrections to be completed.

After the initial re-inspection, any remaining violation(s) will be granted a 14 calendar day timeframe for correction. After such time, the *fire code official* shall perform a re-inspection to ensure that the violation(s) have been remedied. If any violation(s) are still present, the *fire code official* shall note and record the violation(s). The *fire code official* shall then make every attempt to notify the occupant, owner, or responsible party of the violation(s), and recommendations for repairing the violation(s) to comply with the *fire code*. These recommendations will contain appropriate time limits for the corrections to be completed.

(c) Second Re-inspection. After the second re-inspection, any remaining violation(s) will be granted a 7 calendar day timeframe for correction. After such time, the *fire code official* shall perform a re-inspection to ensure that the violation(s) have been remedied. If any violation(s) are still present, the District shall note and record the violation(s). The District shall then make every attempt to notify the occupant, owner, or responsible party of the violation(s), and recommendations for repairing the violation(s) to comply with the *fire code*.

(d) Third Re-inspection. After the third re-inspection, any remaining violation(s) will be documented and sent via certified mail to the occupant and any owner or pertinent, responsible party on record for the premises. An informational copy of such letter will be forwarded to the municipal or county Building Department with jurisdiction. The letter shall contain detail the violation(s), and remedies sought to correct the violation(s). The *fire code official* may issue a citation. Citations will be per violation, per day until corrected.

(e) Fine Schedule for violations. Fines will be calculated and assessed per violation per day, until the violation(s) are corrected.

Initial Inspection	No fine
After 1st Re-inspection	No fine
After 2nd Re-inspection	No fine
After 3rd Re-inspection	\$75.00

After 4th Re-inspection	\$150.00
After 5th Re-inspection	\$300.00
After 6th re-inspection	\$600.00
Each re-inspection after 7th	\$750.00

Section 113.4 is revised to read as follows:

Section 113.4 Violation Penalties:

Except as provided in Section 113.3(e), above, with respect to reinspection fines, persons who shall violate a provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair or do work in violation of the *approved construction documents* or fail to comply with an order, notice directive of the *fire code official*, or of a permit or certificate used under provisions of this code, shall be guilty of a violation of this article, punishable by a fine of not less than seventy-five dollars (\$75.00) or more than seven hundred fifty dollars (\$750.00). Each day that a violation continues after due notice has been served shall be deemed a separate offense.

Abatement of violation. In addition to the imposition of the penalties herein described, the *fire code official* is authorized to institute appropriate action to present unlawful construction or to restrain, correct, or abate a violation; or to prevent illegal occupancy of a structure or premises; an illegal act, conduct of business or occupancy of a structure on or about any premises, including, but not limited to, the initiation by the District for equitable relief from the Circuit Court of St. Clair County, Illinois or any other court of competent jurisdiction.

Unauthorized tampering. Signs, tags, or seals posted or affixed by the *fire code official* shall not be mutilated, destroyed, or tampered with, or removed, without authorization from the *fire code official*.

Section 114.4 is revised to read as follows:

Stop Work Order

Section 114

Section 114.4 Failure to Comply:

Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not less than seventy-five dollars (\$75.00) or more than seven hundred fifty dollars (\$750.00).

Section 115 is deleted in its entirety and replaced with the following:

Unsafe Structures or Equipment

Section 115

General. Subject to and consistent with the provisions of the NFPA 101 Life Safety Code, 2024 Edition as adopted and amended by Ordinance 26-231, if during the inspection of a premises, a building or structure, or any building system, in whole or in part, constitutes a clear and inimical threat to human life, safety or health, the *fire code official* shall issue such notice or orders to remove or remedy the conditions as shall be deemed necessary in accordance with this section, and shall refer the building to the building department for any repairs, alterations, remodeling, removing, or demolition required.

Unsafe conditions. Structures or existing equipment that are or hereafter become unsafe or deficient because of inadequate *means of egress*, that constitute a fire hazard, are otherwise dangerous to human life or the public welfare, or involve illegal or improper occupancy or inadequate maintenance, shall be deemed an unsafe condition. A vacant structure that is not secured against unauthorized entry as required by this code shall be deemed unsafe.

Structural hazards. Where an apparent structural hazard is caused by the faulty installation, operation, or malfunction of any of the items or devices governed by this code, the *fire code official* shall immediately notify the building code official.

Evacuation. The *fire code official* or the fire department official in charge of an incident shall be authorized to order the immediate evacuation of any occupied building deemed unsafe where such building has hazardous conditions that present imminent danger to building occupants. Persons so notified shall immediately leave the structure or premises and shall not enter or re-enter until authorized to do so by the *fire code official* or the fire department official in charge of the incident.

Summary abatement. Where conditions exist that are deemed hazardous to life and property, the *fire code official* or fire department official in charge of the incident is authorized to abate summarily such hazardous conditions that are in violation of this code.

Abatement. The *owner*, the owner's authorized agent, operator, or occupant of a building or premises deemed unsafe by the *fire code official* shall abate or cause to be abated or corrected such unsafe conditions either by repair, rehabilitation, demolition, or other *approved* corrective action.

Applicability of Other Provisions

Except as modified by this Exhibit A, all other provisions of The International Fire Code, 2024 Edition, shall be in effect, including expressly, Chapter 1, Scope and Administration: Section 102 (Applicability), Section 105 (Permits), Section 106 (Construction Documents), Section 107 (Temporary Structures, Uses, Equipment, and Systems), Section 109 (Inspections), Section 110 (Maintenance), Section 111 (Service Utilities), Section 113.1 & Section 113.2 (Violations), and expressly including, Chapters 2 through 67 and including Appendices B through O, but expressly excluding Appendix A.