

Article 19: Flood Hazard Reduction and Compliance with the National Flood Insurance Program (NFIP)

Section 19.01: Statutory Authorization, Findings of Fact, Purpose and Objectives

(A) STATUTORY AUTHORIZATION

See Section 1.02: Authorization

(B) FINDINGS OF FACT

- (1) The Williamson County, Tennessee, Mayor and its Legislative Body wish to maintain eligibility in the National Flood Insurance Program (NFIP) and in order to do so must meet the NFIP regulations found in Title 44 of the Code of Federal Regulations (CFR), Ch. 1, Section 60.3;
- (2) Areas of Williamson County, Tennessee are subject to periodic inundation which could result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare; and
- (3) Flood losses are caused by the cumulative effect of obstructions in floodplains, causing increases in flood heights and velocities; by uses in flood hazard areas which are vulnerable to floods; or construction which is inadequately elevated, floodproofed, or otherwise unprotected from flood damages.

(C) STATEMENT OF PURPOSE

It is the purpose of this Article to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas. This Article is designed to:

- (1) Restrict or prohibit uses which are vulnerable to flooding or erosion hazards, or which result in damaging increases in erosion, flood heights, or velocities;
- (2) Require that uses vulnerable to floods, including community facilities, be protected against flood damage at the time of initial construction;
- (3) Control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters;
- (4) Control filling, grading, dredging and other development which may increase flood damage or erosion; and
- (5) Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.

(D) OBJECTIVES

The objectives of this Article are:

- (1) To protect human life, health, safety and property;
- (2) To minimize expenditure of public funds for costly flood control projects;

- (3) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (4) To minimize prolonged business interruptions;
- (5) To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodprone areas;
- (6) To help maintain a stable tax base by providing for the sound use and development of floodprone areas to minimize blight in flood areas;
- (7) To ensure that potential homebuyers are notified that property is in a floodprone area; and
- (8) To maintain eligibility for participation in the NFIP.

Section 19.02: General Provisions

- (A) **APPLICATION**
This Ordinance shall apply to all areas within the unincorporated area of Williamson County, Tennessee.
- (B) **BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD**
The Areas of Special Flood Hazard identified on the Williamson County, Tennessee, as identified by FEMA, and in its Flood Insurance Study (FIS) dated February 26, 2021 and Flood Insurance Rate Map (FIRM), Community Panel Numbers 47187C0015F, 47187C0020F, 47187C0036F, 47187C0037F, 47187C0038F, 47187C0039F, 47187C0045F, 47187C0086F, 47187C0088F, 47187C0089F, 47187C0130F, 47187C0135F, 47187C0151F, 47187C0152F, 47187C0153F, 47187C0154F, 47187C0157F, 47187C0159F, 47187C0165F, 47187C0170F, 47187C0190F, 47187C0195F, 47187C0204F, 47187C0205F, 47187C0209F, 47187C0212F, 47187C0220F, 47187C0240F, 47187C0285F, 47187C0310F, 47187C0330F, 47187C0335F, 47187C0340F, 47187C0343F, 47187C0345F, 47187C0355F, 47187C0360F, 47187C0365F, 47187C0370F, 47187C0380F, 47187C0385F, 47187C0390F, 47187C0395F, 47187C0435F, 47187C0455F, and 47187C0460F dated September 29 2006, and 47187C0062G, 47187C0063G, 47187C0064G, 47187C0066G, 47187C0067G, 47187C0068G, 47187C0069G, 47187C0156G, 47187C0177G, 47187C0180G, 47187C0181G, 47187C0182G, 47187C0183G, 47187C0184G, 47187C0192G, 47187C0203G, 47187C0213G, and 47187C0214G, dated December 22, 2016, and 47187C0115G, 47187C0230G, 47187C0235G, 47187C0243G, 47187C0244G, and 47187C0245G dated February 26, 2021, along with all supporting technical data, are adopted by reference and declared to be a part of this Ordinance.
- (C) **REQUIREMENT FOR DEVELOPMENT PERMIT**
A development permit shall be required in conformity with this Ordinance prior to the commencement of any development activities.
- (D) **COMPLIANCE**
No land, structure or use shall hereafter be located, extended, converted or structurally altered without full compliance with the terms of this Ordinance and other applicable regulations.
- (E) **ABROGATION AND GREATER RESTRICTIONS**
This Article is not intended to repeal, abrogate, or impair any existing easements, covenants or deed restrictions. However, where this Article conflicts or overlaps with another regulatory instrument, whichever imposes the more stringent restrictions shall prevail.
- (F) **INTERPRETATION**
See Section 1.06: Relationship with Other Laws and Article 9: Interpretations.
- (G) **WARNING AND DISCLAIMER OF LIABILITY**
The degree of flood protection required by this Article is considered reasonable for regulatory

purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This Article does not imply that land outside the Areas of Special Flood Hazard or uses permitted within such areas will be free from flooding or flood damages. This Article shall not create liability on the part of Williamson County, Tennessee or by any officer or employee thereof for any flood damages that result from reliance on this Article or any administrative decision lawfully made hereunder.

(H) PENALTIES FOR VIOLATION

See Article 22: Enforcement and, specifically, Section 22.07: Penalties and Remedies

Section 19.03: Administration

(A) DESIGNATION OF ARTICLE ADMINISTRATOR

The County Engineer is hereby appointed as the Administrator to implement the provisions of this Article.

(B) PERMIT PROCEDURES

Application for a development permit shall be made to the Administrator on forms furnished by the community prior to any development activities. The development permit may include, but is not limited to the following: plans in duplicate drawn to scale and showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, earthen fill placement, storage of materials or equipment, and drainage facilities. Specifically, the following information is required:

(1) Application Stage

- a) Elevation in relation to mean sea level of the proposed lowest floor, including basement, of all buildings where Base Flood Elevations are available, or to certain height above the highest adjacent grade when applicable under this Article.
- b) Elevation in relation to mean sea level to which any non-residential building will be floodproofed where Base Flood Elevations are available, or to certain height above the highest adjacent grade when applicable under this Article.
- c) A FEMA Floodproofing Certificate from a Tennessee registered professional engineer or architect that the proposed non-residential floodproofed building will meet the floodproofing criteria in Section 19.04: Provisions for Flood Hazards Reduction, Subsections A and B.
- d) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.
- e) A final Finished Construction Elevation Certificate (FEMA Form 086-0-33) is required after construction is completed and prior to Certificate of Compliance/Occupancy issuance. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of final as-built construction of the elevation of the reference level and all attendant utilities.
- f) In order to determine if improvements or damage meet the Substantial Improvement or Substantial Damage criteria, the applicant shall provide to the Floodplain Administrator a detailed cost to repair all damages and/or cost of improvements which includes the complete costs associated with all types of work necessary to completely repair or improve a building. These include the costs of all materials, labor, and other items necessary to perform the proposed work. These must be in the form of:
 - i) An itemized costs of materials, and labor, or estimates of materials and labor that are prepared by licensed contractors or professional construction cost estimators
 - ii) Building valuation tables published by building code organizations and cost-estimating manuals and tools available from professional building cost-estimating services.

- iii) A qualified estimate of costs that is prepared by the local official using professional judgement and knowledge of local and regional construction costs.
- iv) A detailed cost estimate provided and prepared by the building owner. This must include as much supporting documentation as possible (such as pricing information from lumber companies, plumbing and electrical suppliers, etc). In addition, the estimate must include the value of labor, including the value of the owner's labor.

(2) Construction Stage

- a) Within AE Zones, where Base Flood Elevation data is available, any lowest floor certification made relative to mean sea level shall be prepared by or under the direct supervision of, a Tennessee registered land surveyor and certified by same. The Administrator shall record the elevation of the lowest floor on the development permit. When floodproofing is utilized for a non-residential building, said certification shall be prepared by, or under the direct supervision of, a Tennessee registered professional engineer or architect and certified by same.
- b) Within approximate A Zones, where Base Flood Elevation data is not available, the elevation of the lowest floor shall be determined as the measurement of the lowest floor of the building relative to the highest adjacent grade. The Administrator shall record the elevation of the lowest floor on the development permit. When floodproofing is utilized for a non-residential building, said certification shall be prepared by, or under the direct supervision of, a Tennessee registered professional engineer or architect and certified by same.
- c) For all new construction and substantial improvements, the permit holder shall provide to the Administrator an as-built certification of the lowest floor elevation or floodproofing level upon the completion of the lowest floor or floodproofing.
- d) Any work undertaken prior to submission of the certification shall be at the permit holder's risk. The Administrator shall review the above-referenced certification data. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further work being allowed to proceed. Failure to submit the certification or failure to make said corrections required hereby, shall be cause to issue a stop-work order for the project.

(3) Finished Construction Stage

For all new construction and substantial improvements, the permit holder shall provide to the Administrator a final Finished Construction Elevation Certificate (FEMA Form 086-0-33). A final Finished Construction Elevation Certificate is required after construction is completed and prior to Certificate of Compliance/Occupancy issuance. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of final as-built construction of the elevation of the reference level and all attendant utilities. The Administrator will keep the certificate on file in perpetuity.

(C) DUTIES AND RESPONSIBILITIES OF THE ADMINISTRATOR

Duties of the Administrator shall include, but not be limited to, the following:

- (1) Review all development permits to assure that the permit requirements of this Ordinance have been satisfied, and that proposed building sites will be reasonably safe from flooding.
- (2) Review proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.
- (3) Notify adjacent communities and the Tennessee Emergency Management Agency, State NFIP Office, prior to any alteration or relocation of a watercourse and submit evidence of such notification to FEMA.

- (4) For any altered or relocated watercourse, submit engineering data/analysis within six (6) months to FEMA to ensure accuracy of community FIRM's through the Letter of Map Revision process.

- (5) Assure that the flood carrying capacity within an altered or relocated portion of any watercourse is maintained.
- (6) Record the elevation, in relation to mean sea level or the highest adjacent grade, where applicable, of the lowest floor (including basement) of all new and substantially improved buildings, in accordance with Section 19.03(B): Permit Procedures.
- (7) Record the actual elevation, in relation to mean sea level or the highest adjacent grade, where applicable to which the new and substantially improved buildings have been floodproofed, in accordance with Section 19.03(B): Permit Procedures.
- (8) When floodproofing is utilized for a nonresidential structure, obtain certification of design criteria from a Tennessee registered professional engineer or architect, in accordance with Section 19.03(B): Permit Procedures.
- (9) Where interpretation is needed as to the exact location of boundaries of the Areas of Special Flood Hazard (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), make the necessary interpretation. Any person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in this Ordinance.
- (10) When Base Flood Elevation data and floodway data have not been provided by FEMA, obtain, review, and reasonably utilize any Base Flood Elevation and floodway data available from a Federal, State, or other sources, including data developed as a result of these regulations, as criteria for requiring that new construction, substantial improvements, or other development in Zone A on the Williamson County, Tennessee FIRM meet the requirements of this Ordinance.
- (11) Maintain all records pertaining to the provisions of this Article in the office of the Administrator and shall be open for public inspection. Permits issued under the provisions of this Article shall be maintained in a separate file or marked for expedited retrieval within combined files.
- (12) A final Finished Construction Elevation Certificate (FEMA Form 086-0-33) is required after construction is completed and prior to Certificate of Compliance/Occupancy issuance. It shall be the duty of the permit holder to submit to the Floodplain Administrator a certification of final as-built construction of the elevation of the reference level and all attendant utilities. The Floodplain Administrator shall review the certificate data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to Certificate of Compliance/Occupancy issuance. In some instances, another certification may be required to certify corrected as-built construction. Failure to submit the certification or failure to make required corrections shall be cause to withhold the issuance of a Certificate of Compliance/Occupancy. The Finished Construction Elevation Certificate certifier shall provide at least 2 photographs showing the front and rear of the building taken within 90 days from the date of certification. The photographs must be taken with views confirming the building description and diagram number provided in Section A. To the extent possible, these photographs should show the entire building including foundation. If the building has split-level or multi-level areas, provide at least 2 additional photographs showing side views of the building. In addition, when applicable, provide a photograph of the foundation showing a representative example of the flood openings or vents. All photographs must be in color and **measure at least 3" x 3". Digital photographs are acceptable.**

Section 19.04: Provisions for Flood Hazards Reduction

(A) GENERAL STANDARDS

In all areas of special flood hazard, the following provisions are required:

- (1) New construction and substantial improvements shall be anchored to prevent flotation, collapse and lateral movement of the structure;
- (2) Manufactured homes shall be installed using methods and practices that minimize flood damage. They must be elevated and anchored to prevent flotation, collapse and lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State of Tennessee and local anchoring requirements for resisting wind forces.
- (3) New construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage;
- (4) New construction and substantial improvements shall be constructed by methods and practices that minimize flood damage;
- (5) All electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;
- (6) New and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
- (7) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters;
- (8) On-site waste disposal systems shall be located and constructed to avoid impairment to them or contamination from them during flooding;
- (9) Any alteration, repair, reconstruction or improvements to a building that is in compliance with the provisions of this Article, shall meet the requirements of "new construction" as contained in this Article;
- (10) Any alteration, repair, reconstruction or improvements to a building that is not in compliance with the provision of this Article, shall be undertaken Only if said non-conformity is not further extended or replaced;
- (11) All new construction and substantial improvement proposals shall provide copies of all necessary Federal and State permits, including Section 404 of the Federal Water Pollution Control Act amendments of 1972, 33 U.S.C. 1334;
- (12) All subdivision proposals and other proposed new development proposals shall meet the standards of Section 19.04 (B): Specific Standards;
- (13) When proposed new construction and substantial improvements are partially located in an area of special flood hazard, the entire structure shall meet the standards for new construction;
- (14) When proposed new construction and substantial improvements are located in multiple flood hazard risk zones or in a flood hazard risk zone with multiple Base Flood Elevations, the entire structure shall meet the standards for the most hazardous flood hazard risk zone and the highest Base Flood Elevation.

(B) SPECIFIC STANDARDS

In all Areas of Special Flood Hazard, the following provisions, in addition to those set forth in Section 19.04(A): General Standards, are required:

(1) Residential Structures

- a) In AE Zones where Base Flood Elevation data is available, new construction and substantial improvement of any residential building (or manufactured home) shall have the lowest floor, including basement, elevated to no lower than one (1) foot above the Base Flood Elevation. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate equalization of flood hydrostatic forces on both sides of exterior walls shall be provided in accordance with the standards of this section: "Enclosures".
- b) Within approximate A Zones where Base Flood Elevations have not been established and where alternative data is not available, the administrator shall require the lowest floor of a building to be elevated to a level of at least three (3) feet above the highest adjacent grade (as defined in Section 23:04: Definitions). Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate equalization of flood hydrostatic forces on both sides of exterior walls shall be provided in accordance with the standards of this section: "Enclosures"

(2) Non-Residential Structures

- a) In AE Zones, where Base Flood Elevation data is available, new construction and substantial improvement of any commercial, industrial, or non-residential building, shall have the lowest floor, including basement, elevated or floodproofed to no lower than one (1) foot above the level of the Base Flood Elevation. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate equalization of flood hydrostatic forces on both sides of exterior walls shall be provided in accordance with the standards of this section: "Enclosures"
- b) In approximate A Zones, where Base Flood Elevations have not been established and where alternative data is not available, new construction and substantial improvement of any commercial, industrial, or non-residential building, shall have the lowest floor, including basement, elevated or floodproofed to no lower than three (3) feet above the highest adjacent grade (as defined in Section 23:04: Definitions). Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate equalization of flood hydrostatic forces on both sides of exterior walls shall be provided in accordance with the standards of this section: "Enclosures"
- c) Non-Residential buildings located in all A Zones may be floodproofed, in lieu of being elevated, provided that all areas of the building below the required elevation are watertight, with walls substantially impermeable to the passage of water, and are built with structural components having the capability of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. A Tennessee registered professional engineer or architect shall certify that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions above, and shall provide such certification to the Administrator as set forth in Section 19.03(B): Permit Procedures.

(3) Enclosures

All new construction and substantial improvements that include fully enclosed areas formed by foundation and other exterior walls below the lowest floor that are subject to flooding, shall be designed to preclude finished living space and designed to allow for the entry and exit of flood waters to automatically equalize hydrostatic flood forces on exterior walls.

- a) Designs for complying with this requirement must either be certified by a Tennessee professional engineer or architect or meet or exceed the following minimum criteria.
 - i) Provide a minimum of two openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding;

- ii) The bottom of all openings shall be no higher than one (1) foot above the finished grade;
 - iii) Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic flow of floodwaters in both directions.
 - b) The enclosed area shall be the minimum necessary to allow for parking of vehicles, storage or building access.
 - c) The interior portion of such enclosed area shall not be finished or partitioned into separate rooms in such a way as to impede the movement of floodwaters and all such partitions shall comply with the provisions of Section 19.04 (B): Specific Standards.
- (4) **Standards for Manufactured Homes and Recreational Vehicles**
- a) All manufactured homes placed, or substantially improved, on: (1) individual lots or parcels, (2) in expansions to existing manufactured home parks or subdivisions, or (3) in new or substantially improved manufactured home parks or subdivisions, must meet all the requirements of new construction.
 - b) All manufactured homes placed or substantially improved in an existing manufactured home park or subdivision must be elevated so that either:
 - i) In AE Zones, with Base Flood Elevations, the lowest floor of the manufactured home is elevated on a permanent foundation to no lower than one (1) foot above the level of the Base Flood Elevation or
 - ii) In approximate A Zones, without Base Flood Elevations, the manufactured home chassis is elevated and supported by reinforced piers (or other foundation elements of at least equivalent strength) that are at least three (3) feet in height above the highest adjacent grade (as defined in Section 23:04: Definitions).
 - c) Any manufactured home, which has incurred “substantial damage” as the result of a flood, must meet the standards of Section 19.04: Provisions for Flood Hazards Reduction, Subsections A and B.
 - d) All manufactured homes must be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.
 - e) All recreational vehicles placed in an identified Special Flood Hazard Area must either:
 - i) Be on the site for fewer than 180 consecutive days;
 - ii) Be fully licensed and ready for highway use (a recreational vehicle is ready for highway use if it is licensed, on its wheels or jacking system, attached to the site Only by quick disconnect type utilities and security devices, and has no permanently attached structures or additions), or;
 - iii) The recreational vehicle must meet all the requirements for new construction.
- (5) **Standards for Subdivisions and Other Proposed New Development Proposals**
- Subdivisions and other proposed new developments, including manufactured home parks, shall be reviewed to determine whether such proposals will be reasonably safe from flooding.
- a) All subdivision and other proposed new development proposals shall be consistent with the need to minimize flood damage.
 - b) All subdivision and other proposed new development proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.
 - c) All subdivision and other proposed new development proposals shall have adequate drainage provided to reduce exposure to flood hazards.
 - d) In all approximate A Zones require that all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than 50 lots or 5 acres, whichever is the lesser, include within such proposals

Base Flood Elevation data (See Section 19.04(E): Standards for Streams without Established Base Flood Elevations and Floodways (A Zones)).

(C) STANDARDS FOR SPECIAL FLOOD HAZARD AREAS WITH ESTABLISHED BASE FLOOD ELEVATIONS AND WITH FLOODWAYS DESIGNATED

Located within the Special Flood Hazard Areas established in Section 19.02(B): Basis for Establishing Areas of Special Flood Hazard, are areas designated as floodways. A floodway may be an extremely hazardous area due to the velocity of floodwaters, debris or erosion potential. In addition, the area must remain free of encroachment in order to allow for the discharge of the base flood without increased flood heights and velocities. Therefore, the following provisions shall apply:

- (1) Encroachments are prohibited, including fill, new construction, substantial improvements or other development within the adopted regulatory floodway. Development may be permitted however, provided it is demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the encroachment shall not result in any increase in flood levels or floodway widths during a base flood discharge. A registered professional engineer must provide supporting technical data and certification thereof;
- (2) A community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the applicant first applies for a conditional letter of map revision (CLOMR) and floodway revision, fulfills the requirements for **such revisions as established under the provisions of § 65.12, and receives the approval of FEMA;**
- (3) Only if Section 19.04 (C)(1) and (2) are satisfied, then any new construction or substantial improvement shall comply with all other applicable flood hazard reduction provisions of Section 19.04: Provisions for Flood Hazards Reduction, Subsections A and B.

(D) STANDARDS FOR AREAS OF SPECIAL FLOOD HAZARD ZONES AE WITH ESTABLISHED BASE FLOOD ELEVATIONS BUT WITHOUT FLOODWAYS DESIGNATED

Located within the Special Flood Hazard Areas established in Section 19.02(B): Basis for Establishing Areas of Special Flood Hazard, where streams exist with base flood data provided but where no floodways have been designated (Zones AE), the following provisions apply:

- (1) Require until a regulatory floodway is designated, that no new construction, substantial , or other development, including fill shall be permitted within Zone AE on the community's FIRM, unless it is demonstrated through hydrologic and hydraulic analyses performed that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one (1) foot at any point within the community.
- (2) A community may permit encroachments within within Zones AE on the community's FIRM, that would result in an increase in the water surface elevation of the base flood, provided that the applicant first applies for a conditional letter of map revision (CLOMR) and floodway **revision, fulfills the requirements for such revisions as established under the provisions of § 65.12, and receives the approval of FEMA;**
- (3) Only if Section 19.04 (D)(1) and (2) are satisfied, then any new construction or substantial improvement shall comply with all other applicable flood hazard reduction provisions of Section 19.04: Provisions for Flood Hazards Reduction, Subsections A and B.

(E) STANDARDS FOR STREAMS WITHOUT ESTABLISHED BASE FLOOD ELEVATIONS AND FLOODWAYS (A ZONES)

Located within the Special Flood Hazard Areas established in Section 19.02(B): Basis for Establishing Areas of Special Flood Hazard, where streams exist, but no base flood data has been provided and where a Floodway has not been delineated, the following provisions shall apply:

- (1) The Administrator shall obtain, review, and reasonably utilize any Base Flood Elevation and

floodway data available from any Federal, State, or other sources, including data developed as a result of these regulations (see 2 below), as criteria for requiring that new construction, substantial improvements, or other development in approximate A Zones meet the requirements of Section 19.04: Provisions for Flood Hazards Reduction, Subsections A and B.

- (2) Require that all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than 50 lots or 5 acres, whichever is the lesser, include within such proposals Base Flood Elevation data.
- (3) Within approximate A Zones, where Base Flood Elevations have not been established and where such data is not available from other sources, require the lowest floor of a building to be elevated or floodproofed to a level of at least three (3) feet above the highest adjacent grade (as defined in Section 23.04: Definitions). All applicable data including elevations or floodproofing certifications shall be recorded as set forth in Section 19.03(B): Permit Procedures. Openings sufficient to facilitate automatic equalization of hydrostatic flood forces on exterior walls shall be provided in accordance with the standards of Section 19.04 (B): Specific Standards.
- (4) Within approximate A Zones, where Base Flood Elevations have not been established and where such data is not available from other sources, no encroachments, including structures or fill material, shall be located within an area equal to the width of the stream or twenty feet (20), whichever is greater, measured from the top of the stream bank, unless certification by a Tennessee registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one (1) foot at any point within Williamson County, Tennessee. The engineering certification should be supported by technical data that conforms to standard hydraulic engineering principles.
- (5) New construction and substantial improvements of buildings, where permitted, shall comply with all applicable flood hazard reduction provisions of Section 19.04: Provisions for Flood Hazards Reduction, Subsections A and B. Within approximate A Zones, require that those subsections of Section 19.04(B): Specific Standards dealing with the alteration or relocation of a watercourse, assuring watercourse carrying capacities are maintained and manufactured homes provisions are complied with as required.

(F) STANDARDS FOR AREAS OF SHALLOW FLOODING (ZONE AO)

Located within the Special Flood Hazard Areas established in Section 19.02(B): Basis for Establishing Areas of Special Flood Hazard, are areas designated as shallow flooding areas. These areas have special flood hazards associated with base flood depths of one (1) to three (3) feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate. In addition to Section 19.04: Provisions for Flood Hazards Reduction, Subsections A and B, all new construction and substantial improvements shall meet the following requirements:

- (1) The lowest floor (including basement) shall be elevated at least as high as the depth number specified on the Flood Insurance Rate Map (FIRM), in feet, plus a freeboard of one (1) foot above the highest adjacent grade; or at least three (3) feet above the highest adjacent grade, if no depth number is specified.
- (2) Non-residential structures may, in lieu of elevation, be floodproofed to the same level as required in Section 19.04(F)(1) so that the structure, together with attendant utility and sanitary facilities, below that level shall be watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. Certification is required in accordance with Section 19.03(B)(1)(c) and Section 19.04 (B)(2).

(3) Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

(G) STANDARDS FOR AREAS OF SHALLOW FLOODING (ZONE AH)

Located within the Special Flood Hazard Areas established in Section 19.02(B): Basis for Establishing Areas of Special Flood Hazard, are areas designated as shallow flooding areas. These areas are subject to inundation by 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are one (1) to three (3) feet. Base Flood Elevations are derived from detailed hydraulic analyses are shown in this zone. In addition to meeting the requirements of Section 19.04: Provisions for Flood Hazards Reduction, Subsections A and B, all new construction and substantial improvements shall meet the following requirements:

(1) Adequate drainage paths shall be provided around structures on slopes, to guide floodwaters around and away from proposed structures.

(H) STANDARDS FOR AREAS PROTECTED BY FLOOD PROTECTION SYSTEM (A-99 ZONES)

Located within the Areas of Special Flood Hazard established in Section 19.02(B): Basis for Establishing Areas of Special Flood Hazard, are areas of the 100-year floodplain protected by a flood protection system but where Base Flood Elevations have not been determined. Within these areas (A-99 Zones) all provisions of Section 19.03 Administration and Section 19.04: Provisions for Flood Hazards Reduction shall apply.

(I) STANDARDS FOR UNMAPPED STREAMS

Located within the Williamson County, Tennessee, are unmapped streams where areas of special flood hazard are neither indicated nor identified. Adjacent to such streams, the following provisions shall apply:

(1) No encroachments including fill material or other development including structures shall be located within an area of at least equal to twice the width of the stream, measured from the top of each stream bank, unless certification by a Tennessee registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one (1) foot at any point within the locality.

(2) When a new flood hazard risk zone, and Base Flood Elevation and floodway data is available, new construction and substantial improvements shall meet the standards established in accordance with Section 19.03 Administration and Section 19.04: Provisions for Flood Hazards Reduction.

(3) Only if Article 19, Section 19.04(I):, provisions (1) and (2) are satisfied, then any new construction or substantial improvement shall comply with all other applicable flood hazard reduction provisions of Section 19.04: Provisions for Flood Hazards Reduction, Subsections A and B.

Section 19.05: Variance Procedures

(A) BOARD OF ZONING APPEALS

See Section 2.02(D): Williamson County Board of Zoning Appeals

(B) VARIANCES

See Section 5.02: Variances

Section 19.06: Legal Status Provisions

(A) CONFLICT WITH OTHER RESOLUTIONS

See Section 1.06: Relationship with Other Laws

(B) SEVERABILITY

See Section 1.10: Severability

Section 19.07: Additional Requirements Supplemental to the State Model Ordinance and the NFIP

(A) PROTECTION STANDARDS

For properties that contain areas of special flood hazard as defined by the Ordinance, the following shall apply:

- (1) Where open space is required as part of a development, all areas of special flood hazard and surrounding buffers shall be preserved, in their natural state, as part of an open space set-aside, subject to Article 14: Open Space Set-Aside Standards.
- (2) Where open space is not required as part of a development, areas of special flood hazard may be located on individual lots and shall be preserved and buffered in their natural state.
- (3) Under no circumstances shall fill material or other encroachments be permitted so as to change the predevelopment limits of any areas of Special Flood Hazard, except where provided herein.

(B) PERMITTED USES IN AREAS OF SPECIAL FLOOD HAZARD

The following uses are permitted within areas of special flood hazard as a matter of right, all other uses are not allowed, even if permitted by the NFIP:

- (1) All uses that are permitted in open space in accordance with Article 14: Open Space Set-Aside Standards.
- (2) All agricultural uses. The raising of tree and plant stock for clear cutting or nursery uses shall also be permitted.
- (3) Uses within the Recreation/Entertainment use category in Table 11.01-1: Table of Allowed Uses and Table 11.01-2: Table of Allowed Uses, provided there are no buildings constructed as part of such uses, except for dugouts, bleachers, and stages.
- (4) Bridges, approaches to bridges, pump stations, sub-surface sewage disposal fields, non-traditional wastewater disposal fields, boat-launching ramps, boat docks, piers, marinas, picnic shelters, boathouses, driveways serving a single-family dwelling, and off-street parking.
- (5) Lots of Record Existing Prior to April 1, 1981
 - a) For lots of record existing prior to the effective date of the FEMA maps of April 1, 1981, the County Engineer is authorized to allow one single-family residential use, its customary accessory structures, and residential additions in areas of special flood hazard provided that the following conditions are met:
 - b) The County Engineer must find that there is no other suitable building site outside the area of special flood hazard on the lot of record;
 - c) Any fill or other encroachment must be offset by an equivalent amount of qualified cut on a one to one basis. Areas below the two-year flood plain elevation shall not represent qualified cut;
 - d) In designated floodway, encroachments are prohibited except for nonsubstantial vertical additions to existing dwellings and nonsubstantial interior renovations within the existing building footprint.