

FLOOD PLAIN ZONING

§ 151.090 STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND OBJECTIVES.

(A) *Statutory authorization.* The Legislature of the State of Tennessee has in Tenn. Code Ann. §§ 13-7-201 through 13-7-210, delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety and general welfare of its citizenry. Therefore, the Town of Collierville, Tennessee Mayor and Board does ordain as follows.

(B) *Findings of fact.*

(1) The Board of Mayor and Aldermen of the Town of Collierville wishes to establish eligibility in the National Flood Insurance Program and in order to do so must meet the requirements of section 60.3(d) of the Federal Insurance Administration Regulations found at 44 CFR Chapter 1 (44 CFR 60.3(d)) and subsequent amendments.

(2) Areas of the Town of Collierville 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.

(3) These flood losses are caused by the cumulative effect of obstructions in floodplains, causing increases in flood heights and velocities; and by uses in flood hazard areas which are vulnerable to floods; or construction which is inadequately elevated, flood-proofed or otherwise unprotected from flood damages.

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

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

(D) *Objectives.* The objectives of this subchapter are:

- (1) To protect human life and health;
- (2) To minimize expenditures of public funds for costly flood control projects;
- (3) To minimize the need for rescue and relief efforts associated with flooding;
- (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, street and bridges located in floodable areas;
- (6) To help maintain a stable tax base by providing for the sound use and development of flood prone areas;
- (7) To ensure that potential buyers are notified that property is in a floodable area; and
- (8) To establish eligibility for participation in the National Flood Insurance Program.

('00 Code, § 11-701) (Am. Ord. 2007-11, passed 9-24-07; Am. Ord. 2007-12, passed 11-12-07; Am. Ord. 2012-19, passed 1-14-13)

§ 151.091 DEFINITIONS.

For the purpose of §§ 151.090 through 151.101, the following definitions shall apply unless the context clearly indicates or requires a different meaning.

ACCESSORY STRUCTURE. A subordinate structure to the principal structure and, for the purpose of this section, shall conform to the following:

- (1) Accessory structures shall not be used for human habitation;
- (2) Accessory structures shall be designed to have low flood damage potential;
- (3) Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters;
- (4) Accessory structures shall be firmly anchored to prevent flotation which may result in damage to other structures;
- (5) Service facilities such as electrical and heating equipment shall be elevated or flood- proofed.

ACT. The statutes authorizing the National Flood Insurance Program that are incorporated in 42 USC 4001-4128.

ADDITION (TO AN EXISTING BUILDING). Any walled and roofed expansion to the perimeter of a building in which the addition is connected by a common load bearing wall other than a fire wall or is separated by independent perimeter load-bearing walls is new construction.

APPEAL. A request for a review of the Building Official's interpretation of any provision of this subchapter or a request for a variance.

AREA OF SHALLOW FLOODING. A designated AO or AH Zone on a community's Flood Insurance Rate Map (FIRM) with 1% or greater annual change of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and where velocity flow may be evident. The flooding is characterized by ponding or sheet flow.

AREA OF SPECIAL FLOOD HAZARD. The land in the floodplain which a community subject to a 1% or greater chance of flooding in any given year. The area may be designated as Zone A on the FHBM. After detailed ratemaking has been completed in preparation for publication of the FIRM Zone A usually is refined into Zones A, AO, AH, A1-30, AE or A99.

AREA OF SPECIAL FLOOD-RELATED EROSION HAZARD. The land within a community, which is most likely to be subject to severe flood-related erosion loss. The area may be designated as Zone E on the Flood Hazard Boundary Map (FHBM). After the detailed evaluation of the special flood- related erosion hazard area in preparation for publication of the FIRM Zone E may be further refined.

BASE FLOOD. The flood having a 1% chance of being equaled or exceeded in any given year.

BASEMENT. That portion of a building having its floor subgrade (below ground level) on all sides.

BREAKAWAY WALL. A wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.

BUILDING. Any structure built for support, shelter or enclosures for any occupancy or storage. (See **STRUCTURE**.)

DEVELOPMENT. Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

ELEVATED BUILDING. A non-basement building:

(1) Built to have the bottom of the lowest horizontal structure member of the elevated floor elevated above the ground level by means of pilings and columns (posts and piers); and

(2) Adequately anchored so as not to impair the structural integrity of the building during a flood of up to the magnitude of the base flood. In the case of Zones A1-30, AE, A, A99, AO, AH, B, C, X or D, **ELEVATED BUILDING** also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of flood

waters.

EMERGENCY FLOOD INSURANCE PROGRAM or EMERGENCY PROGRAM. The program as implemented on an emergency basis in accordance with § 1336 of the Act. It is intended as a program to provide a first layer amount of insurance on all insurable structures before the effective date of the initial FIRM.

EROSION. The process of the gradual wearing away of land masses. This peril is not per se covered under the program.

EXCEPTION. A waiver from the provision of this subchapter which relieves the applicant from the requirements of a rule, regulation, order or other determination made or issued pursuant to this subchapter.

EXISTING CONSTRUCTION. Any type structure for which the start of construction commenced before the effective date of this subchapter.

EXISTING MANUFACTURED HOME PARK OR SUBDIVISION. A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets and either final site grading or the pouring of concrete pad) is completed before the effective date of this subchapter.

EXISTING STRUCTURE. See **EXISTING CONSTRUCTION.**

EXPANSION TO AN EXISTING MANUFACTURED HOME PARK OR SUBDIVISION. The preparation of an additional site by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets and either final site grading or the pouring of concrete pads).

FLOOD or FLOODING. A general and temporary condition of partial or complete inundation of normally dry land area from:

- (1) The overflow of inland or tidal waters;
- (2) The unusual and rapid accumulation or runoff of surface waters from any source.

FLOOD ELEVATION DETERMINATION. A determination by the Administrator of the water surface elevations of the base flood, that is, the flood level that has a 1% or greater chance of occurrence in any given year.

FLOOD ELEVATION STUDY. An examination, evaluation and determination of flood hazard and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of muddy (for example, mudflow) and/or flood-related erosion hazards.

FLOOD HAZARD BOUNDARY MAP (FHBM). An official map of a community, issued by the Federal Emergency Management Agency, where the boundaries of the flood related erosion areas having special hazards have been designated as Zone A, M and/or E.

FLOOD INSURANCE RATE MAP (FIRM). An official map of a community on which the Federal Emergency Management Agency has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.

FLOOD INSURANCE STUDY. The official report provided by the Federal Emergency Management Agency. The report contains flood profiles as well as the Flood Boundary Map and the water surface elevation of the base flood.

FLOOD PROTECTION SYSTEM. Those physical structural works for which funds have been authorized, appropriated and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the area within a community subject to a special flood hazard and the extent of the depths of associated flooding. Such a system typically includes hurricane tidal barriers, dams, reservoirs, levees or dikes. These specialized flood modifying works are those constructed in conformance with sound engineering standards.

FLOODPLAIN or FLOOD-PRONE AREA. Any land area susceptible to being inundated by water from any source (see definition of flooding).

FLOODPLAIN MANAGEMENT. The operation of an overall program of corrective and preventive measures for reducing flood damage, including, but not limited to emergency preparedness plans, flood control works and floodplain management regulations.

FLOOD-PROOFING. Any combination of structural and non-structural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

FLOOD-RELATED EROSION. The collapse or subsidence of land along the shore of a lake or other body of water as a result of undermining caused by waves or currents of water exceeding anticipated cyclical level or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge or by some similarly unusual and unforeseeable event which results in flooding.

FLOOD-RELATED EROSION AREA or **FLOOD-RELATED EROSION PRONE AREA.** A land area adjoining the shore of a lake or other body of water which, due to the composition of the shoreline or bank and high water levels or wide-driven currents, is likely to suffer flood-related erosion damage.

FLOOD-RELATED EROSION AREA MANAGEMENT. The operation of an overall program of corrective and preventive measures for reducing flood-related erosion damage, including, but not limited to emergency preparedness plans, flood-related erosion control works and floodplain management regulations.

FLOODWAY. The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

FLOOR. The top surface of an enclosed area in a building (including basement), for example, top of slab in concrete slab construction or top of wood flooring in wood-frame construction. The term does not include the floor of a garage used solely for parking vehicles.

FREEBOARD. A factor of safety usually expressed in feet above a flood level for purpose of floodplain management. Freeboard tends to compensate for the many unknown factors that could contribute to flood height greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings and the hydrological effect of urbanization of the watershed.

FUNCTIONALLY DEPENDENT USE. A use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

HIGHEST ADJACENT GRADE. The highest natural elevation of the ground surface, prior to construction, next to the proposed walls of a structure.

HISTORIC STRUCTURE. Any structure that is:

- (1) Listed individually in the National Register of Historic Places (a listing maintained by Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements to individual listing on the National Register;
- (2) Certified or preliminarily determined by the Secretary of the Interiors as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- (3) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
- (4) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 - (a) By the approved state program as determined by the Secretary of the Interior; or
 - (b) Directly by the Secretary of the Interior in states with approved programs.

LEVEE. Man-made structures, usually an earth embankment, designated and constructed in accordance with sound engineering practices to contain, control or divert the flow of water so as to provide protection from temporary flooding.

LEVEE SYSTEM. A flood protection system which consists of a levee or levees and associated structures, such as closure and drainage devices which are constructed and operated in accordance with sound engineering practices.

LOWEST FLOOR. The lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided, that such enclosure is now built so as to render the structure in violation of the applicable non-elevation design requirement of this subchapter.

MANUFACTURED HOME. A structure, transportable in one or more sections, which is built on a permanent chassis and

designed for use with or without a permanent foundation when attached to the required utilities. The term **MANUFACTURED HOME** does not include a recreational vehicle.

MANUFACTURED HOME PARK OR SUBDIVISION. A parcel (or contiguous parcel) of land divided into two or more manufactured home lots for rent or sale.

MAP. The Flood Hazard Boundary Map (FHBM) or the Flood Insurance Rate Map (FIRM) for a community issued by the Agency.

MEAN SEA LEVEL. The average height of the sea for all stages of the tide. It is used as a reference for establishing various elevations within the floodplain. For purposes of this subchapter, the term is synonymous with National Geodetic Vertical Datum (NGVD) or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

NATIONAL GEODETIC VERTICAL DATUM (NGVD). As corrected in 1929, is a vertical control used as a reference for establishing varying elevations within the floodplain.

NEW CONSTRUCTION. Any structure for which the start of construction commenced on or after the effective date of this subchapter. The term also includes any subsequent improvements to such structure.

NEW MANUFACTURED HOME PARK OR SUBDIVISION. A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets and either final site grading or the pouring of concrete pads) is completed on or after the effective date of this subchapter.

100-YEAR FLOOD. See **BASE FLOOD.**

PERSON. Any individual or group of individuals, corporation, partnership, association or any other entity, including state and local government agencies.

RECREATIONAL VEHICLES. A vehicle which is:

- (1) Built on a single chassis;
- (2) Four-hundred square feet or less when measured at the largest horizontal projections;
- (3) Designed to be self-propelled or permanently towable by a light duty truck; and
- (4) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use.

REGULATORY FLOODWAY. The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

RIVERINE. Relating to, formed by or resembling a river (including tributaries), stream, brook and the like.

SITE COORDINATING AGENCY. (Tennessee Department of Economic and Community Development) The agency of the state government, or other office designated by the Governor of the state or by state statute at the request of the Administrator to assist in the implementation of the National Flood Insurance Program in that state.

SPECIAL HAZARD AREA. An area having special flood mudslide (mudflow) and/or flood-related erosion hazards and shown on the FHBM as Zone A, AO, AI-30, AE, A99 or AH.

START OF CONSTRUCTION. Includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure (including a manufactured home) on a site, such as the pouring of slabs or footings, the installation of piles, the construction of columns or any work beyond the stage of excavation or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of street and/or walkways; nor does it include excavation for a basement, footings, piers, foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual **START OF CONSTRUCTION** means the first alteration of any wall, ceiling, floor or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

STRUCTURE. A walled and roofed building that is principally above ground, a manufactured home, a gas or liquid storage tank or

other man-made facilities or infrastructures.

SUBSTANTIAL DAMAGE. Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damage condition would equal or exceed 50% of the market value of the structure before the damage occurred.

SUBSTANTIAL IMPROVED EXISTING MANUFACTURED HOME PARK OR SUBDIVISION. Where the repair, reconstruction, rehabilitation or improvement of the streets, utilities and pads equals or exceeds 50% of the value of the streets, utilities and pads before the repair, reconstruction or improvement commenced.

SUBSTANTIAL IMPROVEMENT. Any reconstruction, rehabilitation, addition or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the start of construction of the improvement. This term includes structures which have incurred substantial damage, regardless of the actual repair work performed. The term does not, however, include either:

(1) Any project for improvement of a structure to correct existing violations of state or local health, sanitary or safety specifications which have been identified by the local enforcement official and which are the minimum necessary to assure safe living conditions; or

(2) Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.

VARIANCE. A grant of relief from the requirements of this subchapter which permits construction in a manner otherwise prohibited by this subchapter where specific enforcement would result in unnecessary hardship.

VIOLATION. The failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certification or other evidence of compliance required in this subchapter is presumed to be in violation until such time as that documentation is provided.

WATER SURFACE ELEVATION. The height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, (or other datum, where specified) of floods of various magnitudes and frequencies in the flood plains of coast or riverine areas.

('00 Code, § 11-702) (Am. Ord. 2012-19, passed 1-14-13)

§ 151.092 APPLICATION.

This subchapter shall apply to all areas within the incorporated area of Collierville, Tennessee.

('00 Code, § 11-703)

§ 151.093 BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD.

(A) The areas of special flood hazard identified on the Collierville, Tennessee, Federal Emergency Management Agency, Flood Insurance Rate Map, Community - Panel Numbers: #47157C0470F, Effective Date 9-28-07; #47157C0480G, Effective Date 2-6-13; #47157C0483G, Effective Date 2-6-13; #47157C0485G, Effective Date 2-6-13; #47157C0490G, Effective Date 2-16-13; #47157C0495G, Effective Date 2-6-13; #47157C0610F, Effective Date 9-28-07; #47157C0630F, Effective Date 9-28-07; and any subsequent amendments or revisions, are adopted by reference and declared to be a part of this subchapter.

(B) The information contained in Exhibit A ("Final Summary of Map Actions") of Ordinance 2012-19 hereto is hereby adopted and incorporated by reference as set forth in full. The Town Administrator shall take all necessary steps to assure that the records of the Town are amended to reflect the revisions in Base Flood Elevations and other information required to assure that the Flood Insurance Rate Maps for the Town fully comply with all applicable laws, rules, and regulations.

('00 Code, § 11-703) (Am. Ord. 2007-11, passed 9-24-07; Am. Ord. 2007-12, passed 11-12-07; Am. Ord. 2012-19, passed 1-14-13)

§ 151.094 REQUIREMENTS FOR DEVELOPMENT PERMIT.

A development permit shall be required in conformity with this subchapter prior to the commencement of any development activity.

(`00 Code, § 11-703)

§ 151.095 COMPLIANCE.

No structure or use shall hereafter be located, extended, converted or structurally altered without full compliance with the terms of this subchapter and other applicable regulations.

(`00 Code, § 11-703)

§ 151.096 ABROGATION AND GREATER RESTRICTIONS.

This subchapter is not intended to repeal, abrogate or impair any existing easement, covenant or deed restriction. However, where this subchapter conflicts or overlaps with another, whichever imposes the more stringent restrictions shall prevail.

(`00 Code, § 11-703)

§ 151.097 INTERPRETATION.

In the interpretation and application of this subchapter, all provisions shall be:

- (A) Considered as minimum requirements;
- (B) Liberally construed in favor of the Board; and
- (C) Deemed neither to limit nor repeal any other powers granted under state statutes.

(`00 Code, § 11-703)

§ 151.098 WARNING AND DISCLAIMER OF LIABILITY.

The degree of flood protection required by this subchapter 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 subchapter does not imply that land outside the flood hazard areas or uses permitted within such areas will be free from flooding or flood damages. This subchapter shall not create liability on the part of the Town of Collierville, Tennessee or by any officer or employee thereof for any flood damages that result from reliance on this subchapter or any administrative decision lawfully made hereunder.

(`00 Code, § 11-703)

§ 151.099 ADMINISTRATION.

(A) *Designation of Development Director.* The Development Director is appointed to administer and implement the provisions of this subchapter.

(B) *Permit procedures.* Application for a development permit shall be made to the Development Director on forms furnished by him or her prior to any development activity. The development permit may include, but is not limited to the following: plans in duplicate drawn to scale showing the nature, location, dimensions and elevations of the area in question; existing or proposed structure, earthen fill, storage of materials or equipment, 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. (See subsection (2) below.)

(b) Elevation in relation to mean sea level to which non-residential building will be flood- proofed, where base flood elevation data is available. (See subsection (2) below.)

(c) Certificate from a registered professional engineer or architect that the non-residential flood-proofed building will meet the flood-proofing criteria in subsection (B)(2) below, where base flood elevation data is available.

(d) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

(2) *Construction stage.*

(a) Within unnumbered A Zones, where flood elevation data are not available, the Development Director shall record the elevation of the lowest floor on the development permit. The elevation of the lowest floor shall be determined as the measurement of the lowest floor of the building and the highest adjacent grade. USGS Quadrangle maps may be utilized when no more detailed reference exists to establish reference elevations.

(b) Within all flood zones where base flood elevation data are utilized, the Development Director shall require that upon placement of the lowest floor, or flood-proofing by whatever construction means, whichever is applicable, it shall be the duty of the permit holder to submit to the Development Director a certification of the elevation of the lowest floor, or flood-proofed elevation, whichever is applicable, as built, in relation to mean sea level. The certification shall be prepared by, or under the direct supervision of, a registered land surveyor, professional engineer or architect and certified by same. When flood-proofing is utilized for a particular building, the certification shall be prepared by, or under the direct supervision of, a professional engineer or an architect and certified by same. Any work undertaken prior to submission of the certification shall be at the permit holder's risk. The Development Director shall review the floor elevation survey data submitted. Deficiencies detected by such review shall be corrected by the permit holder immediately and prior to further progressive work being permitted to proceed. Failure to submit the survey or failure to make the corrections required hereby shall be a cause to issue a stop-work order for the project.

(C) *Duties and responsibilities of the Development Director.* Duties of the Development Director shall include, but not limited to:

(1) Review of all development permits to assure that the requirements of this subchapter have been satisfied, and that proposed building sites will be reasonably safe from flooding;

(2) Advice to permittee that additional federal or state permits may be required, and if specific federal or state permit requirements are known, require that copies of such permits be provided and maintained on file with the development permit. This shall include Section 404 of the Federal Water Pollution Act Amendments of 1972, 33 USC 1334;

(3) Notification to adjacent communities and the Tennessee Department of Economic and Community Development, prior to any alteration or relocation of a watercourse and submission of evidence of such notification to the Federal Emergency Management Agency;

(4) Record the actual elevation (in relation to mean sea level or highest adjacent grade, whichever is applicable) of the lowest floor (including basement) of all new or substantially improved buildings, in accordance with subsection (B)(2);

(5) Record the actual elevation (in relation to mean seal level or highest adjacent grade, whichever is applicable) to which the new substantially improved buildings have been flood-proofed, in accordance with subsection (B)(2);

(6) Where flood-proofing is utilized, the Development Director shall obtain certification from a registered professional engineer or architect, in accordance with subsection (B)(2);

(7) Where interpretations are 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) the Development Director shall make the necessary interpretation. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in § 151.101;

(8) When base flood elevation data or floodway data have not been provided by the Federal Emergency Management Agency, then the Development Director shall obtain review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source, 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 Community FHBM or FIRM meet the requirements of this subchapter. (Optional additional requirements: within unnumbered A Zones, where base flood elevations have not been established and where alternative data is not available, the Development Director shall require the lowest floor of a building to be elevated or flood-proofed to level of at least two feet above the highest adjacent grade (lowest floor and highest adjacent grade being defined in § 151.091). All applicable data including the highest adjacent grade elevation and the elevation of the lowest floor of flood-proofing shall be recorded as set forth in division (B) of this section;

(9) All records pertaining to the provisions of this subchapter shall be maintained in the office of the Development Director and

shall be open for public inspection. Permits issued under the provisions of this subchapter shall be maintained in a separate file or marked for expedited retrieval within combined files;

(10) Assure that the flood carrying capacity within an altered or relocated portion of any watercourse is maintained.

(('00 Code, § 11-704) (Am. Ord. 2012-19, passed 1-14-13)

§ 151.100 PROVISIONS FOR FLOOD HAZARD REDUCTION.

(A) *General standards.* In all flood prone areas, the following provisions are required.

(1) New construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.

(2) Manufactured homes shall be elevated and anchored to prevent flotation, collapse or lateral movement. Method of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This standard shall be in addition to and consistent with applicable state requirements for resisting wind forces.

(3) New construction and substantial improvements be constructed with materials and utility equipment resistant to flood damage.

(4) New construction or substantial improvements shall be constructed by methods and practices that minimize flood damage.

(5) 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 sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood water into the systems.

(7) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into systems and discharge 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 which is in compliance with the provisions of this subchapter shall meet the requirements of new construction, as contained in this subchapter.

(10) Any alteration, repair, reconstruction or improvements to a building which is not in compliance with the provisions of this subchapter shall be undertaken only if the nonconformity is not extended.

(B) *Specific standards.* These provisions shall apply to all areas of special flood hazard as provided herein.

(1) In all areas of special flood hazard where base flood elevation data have been provided, including A Zones, A1-30, AE Zones, AO Zones, AH Zones and A99 Zones, and has provided a regulatory floodway, as set forth in § 151.093, the following provisions are required.

(a) *Residential construction.* New construction or substantial improvement to any residential building (or manufactured home) shall have the lowest floor, including basement, elevated no lower than one foot above the base flood elevation. Should solid foundation perimeter walls be used to elevate a structure, openings sufficient to facilitate the unimpeded movement of flood waters shall be provided in accordance with standards of subsection (B)(3).

(b) *Nonresidential construction.* New construction or substantial improvement of any commercial, industrial or nonresidential building shall have the lowest floor, including basement, elevated no lower than one foot above the level of the base flood elevation. Buildings located in all A Zones may be flood-proofed in lieu of being elevated, provided that all areas of the building below the required elevation are water tight 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 registered professional engineer or architect shall certify that the standards of this subsection are satisfied. The certification shall be provided to the Development Director as set forth in § 151.099(B)(2).

(c) *Elevated building.* New construction or substantial improvements of elevated buildings that include fully enclosed areas formed by foundation and other exterior walls below the base flood elevation 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.

1. Designs for complying with this requirement must either be certified by a professional engineer or architect or meet the following minimum criteria:

- a. Provide a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding;
- b. The bottom of all openings shall be no higher than one foot above grade; and
- c. Openings may be equipped with screens, louvers, valves or other coverings or devices, provided they permit the automatic flow of floodwater in both directions;

2. Access to the enclosed area shall be the minimum necessary to allow for parking of vehicles (garage door) or limited storage of maintenance equipment used in connection with the premises (standard exterior door) or entry to the living area (stairway or elevator); and

3. The interior portion of such enclosed area shall not be partitioned or finished into separate rooms in such a way as to impede the movement of floodwaters and all such petitions shall comply with the provisions of division (B) of this section.

(d) *Standards for manufactured homes and recreational vehicles.*

1. All manufactured homes placed or substantially improved, on individual lots or parcels, in expansions of existing manufactured home parks or subdivision or in substantially improved manufactured home parks or subdivisions must meet all the requirements of new construction, including elevations and anchoring.

2. All manufactured homes placed or substantially improved in an existing manufactured home park or subdivision must be elevated so that:

a. The lowest floor of the manufactured home is elevated no lower than one foot above the level of the base flood elevation on a permanent foundation;

b. All manufactured homes must be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement; and

c. In or outside of an existing or new manufactured home park or subdivision or in an expansion of an existing manufactured home park or subdivision, on which a manufactured home has incurred substantial damage as the result of a flood, any manufactured home placed or substantially improved must meet the standards of subsections a. and b. above.

(e) All recreational vehicles placed on site must either:

1. Be on the site for fewer than 180 consecutive days;

2. Be fully licensed and ready for highway use; or

3. The recreational vehicle must meet all the requirements for new construction, including anchoring and elevation requirements of subsection (B)(1)(d)1. or 2.a. and b.

(2) A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by a quick disconnect type utilities and security devices and has no permanently attached structures.

(3) In all areas of specific flood hazard where base flood elevation data or floodway data have not been provided, the provisions of § 151.099(C)(8) shall be utilized for all requirements relative to the base flood elevation or floodway.

(C) *Standards for areas of special flood hazard zone A1-30 and AE with established base flood elevation but without floodways designated.* Located within the areas of special flood hazard established in § 151.093, where streams existing with base flood data is provided but where no floodways have been provided (Zones A1-30 and AE), the following provisions apply.

(1) No encroachments, including fill material, new structures or substantial improvements shall be located within areas of special flood hazard, unless certification by a 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 foot at any point within the community. The engineering certification should be supported by technical data that conforms to standard hydraulic engineering principles.

(2) New construction or substantial improvements of buildings shall be elevated or flood- proofed to elevations established in accordance with division (B) of this section.

(D) *Standards for areas of shallow flooding (AO and AH Zones)*. Located within the areas of special flood hazard established in § 151.093 are areas designated as shallow flooding areas. These areas have special flood hazards associated with base flood depths of one to three feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and indeterminate; therefore, the following provisions apply.

(1) All new construction and substantial improvements of residential buildings shall have the lowest floor, including basement, elevated to the depth number specified on the Flood Insurance Rate Map, in feet, above the highest adjacent grade. If no depth number is specified, the lowest floor, including basement, shall be elevated, at least two feet above the highest adjacent grade.

(2) All new construction and substantial improvements of non-residential buildings shall:

(a) Have the lowest floor, including basement, elevated to the depth number specified on the Flood Insurance Rate Map, in feet, above the highest adjacent grade. If no depth number is specified, the lowest floor, including basement, shall be elevated at least two feet above the highest adjacent grade; or

(b) Together with attendant utility and sanitary facilities be completely flood-proofed to or above that level so that any space below that level is 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.

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

(E) *Standards for areas protected by flood protection systems (A-99 Zones)*. Located within the areas of special flood hazard established in § 151.093 are areas of the 100-year flood protected by a flood protection system which is under construction but where base flood elevations and flood hazard factors have not been determined. With these areas (A-99 Zones), the following provisions apply: all provisions of § 151.099 and divisions (A) and (H) of this section shall apply.

(F) *Standards for areas of special flood hazard with established base flood elevation and with floodway designated*. Located within the areas of special flood hazard established in § 151.093, where streams exist with base flood data and floodways provided, the following provisions apply.

(1) No encroachments, including fill material, new construction, substantial improvements or other development shall be located within designated floodways, unless certification from a registered professional engineer is provided demonstrating that the cumulative effect of the proposed encroachments or new development will not increase the water surface elevation of the base flood during the occurrence of the base flood discharge at any point within the community. The engineering certification should be supported by technical data that conforms to standard hydraulic engineering principles.

(2) If subsection (F)(1) above is satisfied, new construction or substantial improvements of buildings shall be elevated or flood-proofed to elevations established in accordance with division (B) of this section.

(G) *Standard for unmapped streams*. Located in Collierville, Tennessee are unmapped streams where areas of special flood hazard are neither indicated nor base flood data or floodways have been provided. Adjacent to such streams the following provisions shall apply:

(1) In areas adjacent to such unmapped streams, no encroachments, including fill material or structures shall be located within an area of at least equal to twice the width of the stream along each side of the stream, unless certification by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the locality;

(2) When flood elevation data is available, new construction or substantial improvements of buildings shall be elevated or flood-proofed to elevations established with § 151.099(B)(2).

(H) *Standards for subdivision proposals*. Subdivision proposals and other proposed new development, including manufactured home parks or subdivision, shall be reviewed to determine whether such proposals will be reasonably safe from flooding. If a subdivision proposal or other proposed new development is in a flood-prone area, any such proposals shall be reviewed to ensure that:

(1) All subdivision proposals shall be consistent with the need to minimize flood damage;

(2) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage;

(3) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood hazards;

(4) Base flood elevation data shall be provided for subdivision proposals and other proposed development (including manufactured home parks and subdivisions) which is greater than 50 lots and/or five acres.

(00 Code, § 11-705)

§ 151.101 VARIANCE PROCEDURES.

(A) *General.* The provisions of this section shall apply exclusively to areas of special flood hazard.

(B) *Board of Zoning Appeals.*

(1) The Town of Collierville Board of Zoning Appeals shall hear and decide appeals and requests for variances from the requirements of this subchapter.

(2) Variances may be issued for the repair or rehabilitation of historic structures (see definition) upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum to preserve the historic character and design of the structure.

(3) In passing upon such applications, the Board of Zoning Appeals shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this subchapter and:

- (a) The danger that materials may be swept onto other property to the injury of others;
- (b) The danger to life and property due to flooding or erosion;
- (c) The susceptibility of the proposed facility and its contents to flood damage;
- (d) The importance of the services provided by the proposed facility to the community;
- (e) The necessity of the facility to a waterfront location, in the case of a functionally dependent facility;
- (f) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
- (g) The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
- (h) The safety of access to the property in times of flood for ordinary and emergency vehicles;
- (i) The expected heights, velocity, duration, rate of rise and sediment transportation of the flood waters and the effects of wave action, if applicable, expected at the site; and

(j) The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, water systems, streets and bridges.

(4) Upon consideration of the factors listed above, and the purposes of this subchapter, the Board of Zoning Appeals may attach such conditions to the granting of variance as it deems necessary to effectuate the purposes of this subchapter.

(5) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

(C) *Conditions for variances.*

(1) Variances shall be issued upon a determination that the variance is the minimum relief necessary, considering the flood hazard; and in the issuance of a historical building, a determination that the variance is the minimum relief necessary so as not to destroy the historic character and design of the building.

(2) Variances shall only be issued upon:

- (a) A showing of good and sufficient cause;
- (b) A determination that failure to grant the variance would result in exceptional hardship; and

(c) A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisance, cause fraud on or victimization of the public or conflict with existing local laws or ordinances.

(3) Any applicant to whom a variance is granted shall be given written notice that the issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance and that such construction below the base flood level increases risks to life and property.

(4) The Development Director shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency upon request.

(`00 Code, § 11-706)

§ 151.102 VIOLATIONS.

Violation of the provisions of this subchapter or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with grants of variances or special exceptions, shall be punishable as provided by law. Each day that such violation continues shall be considered a separate offense. Nothing herein contained shall prevent the Town of Collierville, Tennessee from taking such other lawful actions to prevent or remedy any violation.

(`00 Code, § 11-703) Penalty, see § 10.99