

ORDINANCE NUMBER 87-05

AN ORDINANCE TO AMEND THE SPRING HILL MUNICIPAL ZONING ORDINANCE, ORDINANCE 74-2, AS PREVIOUSLY AMENDED, BY REPLACING THE PROVISIONS OF ARTICLE IX, THE PROVISIONS GOVERNING FLOODWAY AND FLOOD FRINGE DISTRICTS AND AMENDING CERTAIN DEFINITIONS CONTAINED IN ARTICLE III

BE IT ORDAINED BY THE BOARD OF MAYOR AND ALDERMEN OF THE TOWN OF SPRING HILL, TENNESSEE:

I. That on the recommendation of Mr. Phil Maples of the Middle Tennessee Region of the Local Planning Office of the Tennessee Department of Economic and Community Development, and its approval by the Spring Hill Regional Planning Commission at a regular meeting held on February 9, 1987, the Spring Hill Municipal Zoning Ordinance, Ordinance No. 74-2, as previously amended, is hereby further amended as follows:

1. By deleting all of Article IX in its entirety and substituting in lieu thereof the Provisions Governing Floodway and Flood Fringe Districts recommended by the State Local Planning Office and approved by the Spring Hill Regional Planning Commission, a copy of which is attached hereto as Exhibit A to this Ordinance and hereby made a part hereof.

2. By amending the following definitions set forth in Article III:

a. By deleting the definition of "Flood" and inserting in lieu thereof the provisions of 2.8, set forth in the Exhibit to this Ordinance;

b. By deleting the definition of "Flood Plane" and inserting in lieu thereof the provisions of Section 2.14 set forth in the Exhibit to this Ordinance.

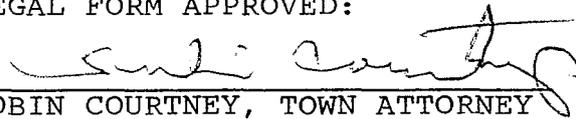
A public hearing was held on this proposed amendment to the Zoning Ordinance at a meeting of the Board of Mayor and Aldermen of the Town of Spring Hill on March 16, 1987, after notice thereof was published in the Columbia Daily Herald and the Spring Hill Morning Sun on the 19th day of February, 1987.

  
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GEORGE C. JONES, MAYOR

ATTEST:

  
\_\_\_\_\_  
JUNE QUIRK, SECRETARY

LEGAL FORM APPROVED:

  
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ROBIN COURTNEY, TOWN ATTORNEY

Passed on 1st reading: 2-16-87

Passed on 2nd reading: 3-16-87

Passed on 3rd reading: 3-24-87

## ARTICLE IX

### PROVISIONS GOVERNING FLOODWAY AND FLOOD FRINGE DISTRICTS

#### Section 1. Intent and Objectives

##### 1.1 Finding of Fact

- 1.1(1) The flood hazard areas of Spring Hill, Tennessee are subject to periodic inundation which results 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.
- 1.1(2) The flood losses are caused by the cumulative effect of obstructions in floodplains causing increases in flood heights and velocities, and by the occupancy in flood hazard areas by uses vulnerable to floods or hazardous to other lands which are inadequately elevated, flood-proofed, or otherwise unprotected from flood damages.

##### 1.2 Statement of Purpose

It is the purpose of this article to promote the public health, safety and general welfare and to minimize public losses due to flood conditions in specific areas by provisions designed to:

- 1.2 (1) Restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- 1.2 (2) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

- 1.2(3) Control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters;
- 1.2(4) Control filling, grading, dredging and other development which may increase erosion or flood damage, and;
- 1.2(5) Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.

### 1.3 Objectives ;

The objectives of this ordinance are:

- 1.3(1) To protect human life and health;
- 1.3(2) To minimize expenditure of public money for costly flood control projects;
- 1.3(3) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- 1.3(4) To minimize prolonged business interruptions;
- 1.3(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 floodplains;
- 1.3(6) To help maintain a stable tax base by providing for the sound use and development of flood prone areas in such a manner as to minimize flood blight areas, and;
- 1.3(7) To insure that potential home buyers are notified that property is in a flood area.

### Section 2. Supplementary Definitions

The following definitions are to be used for interpreting the provisions of this article only. These definitions are not intended to permit uses of land that may otherwise be prohibited by the base zoning district. Where words have not been defined, the standard dictionary definition shall prevail, unless defined in Article III of this ordinance.

- 2.1 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 loadbearing wall other than a fire wall. Any walled and roofed addition which is connected by a fire wall or is separated by independent perimeter load-bearing walls is new construction.
- 2.2 Appeal - A request for a review by the Spring Hill Board of Zoning Appeals for an interpretation of any provision of this ordinance, a request for a variance, or a request for a special exception.
- 2.3 Area of shallow flooding - A designated AO or VO Zone on a community's Flood Insurance Rate Map (FIRM) with base flood depths from one (1) to three (3) feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and indeterminate, and where velocity flow may be evident.
- 2.4 Area of special flood hazard - The land in the floodplain within a community subject to a one (1) percent or greater chance of flooding in any given year.
- 2.5 Base flood - The flood having a one (1) percent chance of being equaled or exceeded in any given year.
- 2.6 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 the supporting foundation system.
- 2.7 Elevated building - A non-basement building built to have the lowest floor elevated above the ground level by means of fill, solid foundation perimeter walls, pilings, columns (posts and piers), shear walls, or breakaway walls.
- 2.8 Flood or flooding - A general and temporary condition of partial or complete inundation of normally dry land areas from:
- 2.8(1) the overflow of inland or tidal waters;
  - 2.8(2) the unusual and rapid accumulation of runoff of surface waters from any source.

- 2.9 Flood control works - Any man-made construction, such as a dam, levee, groin or jetty designed to alter the flood potential of the body of water on or adjacent to which it is built.
- 2.10 Flood fringe area - That area of the floodplain lying outside the floodway but still lying within the area of special flood hazard, i.e., within the 100-year floodplain.
- 2.11 Flood Hazard Boundary Map (FHBM) - An official map of a community, issued by the Federal Emergency Management Agency, where the boundaries of the areas of special flood hazard have been defined as Zone A.
- 2.12 Flood Insurance Rate Map (FIRM) - An official map of a community, on which the Federal Management Agency has delineated both the areas of special flood hazard and the risk premium zones applicable to the community.
- 2.13 Flood Insurance Study - The official report provided by the Federal Emergency Management Agency. The report contains flood profiles, as well as the Flood Boundary Floodway map and the water surface elevation of the base flood.
- 2.14 Floodplain - Any normally dry land area that is susceptible to being inundated by waters of the one (1) percent annual chance flood, i.e., the 100-year flood.
- 2.15 Floodproofing - Structural additions, changes, or adjustments to structures subject to flooding which will reduce or eliminate flood damages to water and sewer facilities, structures, and contents of buildings.
- 2.16 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 (1) foot.
- 2.17 Floor - The top surface of an enclosed area in a building (including basement), i.e., 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.
- 2.18 Highest adjacent grade - The highest natural elevation of the ground surface, prior to construction, next to the proposed walls of a structure.

- 2.19 Manufactured Home - A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes the term "manufactured home" also included park trailers, travel trailers, and other similar vehicles placed on a site for greater than one hundred eighty (180) consecutive days.
- 2.20 Manufactured home park or subdivision - A parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.
- 2.21 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 ordinance, the term is synonymous with National Geodetic Vertical Datum (NGVD).
- 2.22 National Geodetic Vertical Datum (NGVD) - As corrected in 1929 is a vertical control used as a reference for establishing varying elevations within the floodplain.
- 2.23 New construction - Structures for which the "start of construction" commenced on or after the effective date of this ordinance.
- 2.24 Regulatory flood - For purposes of this ordinance, a flood event having a one (1) percent chance of occurring in any given year, although the flood may occur in any year, i.e., the 100-year flood.
- 2.25 Regulatory flood elevation - The crest elevation in relation to mean-sea-level expected to be reached by the regulatory flood at any given point in an area of special flood hazard.
- 2.26 Start of construction - The date the building permit was issued, provided the actual start of construction, repair reconstruction, placement, or other improvement was within one hundred eighty (180) days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of a slab 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 streets and/or walkways; nor does it include excavation for a basement, footings, piers, or 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.

- 2.27 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.
- 2.28 Substantial improvement - Any combination of repairs, reconstruction, alteration, or improvements to a structure, taking place during the life of a structure, in which the cumulative costs equals or exceeds fifty (50) percent of the market value of the structure. The market value of the structure should be (1) the appraised value of the structure prior to the start of the initial repair or improvement, or (2) in the case of damage, the value of the structure prior to the damage occurring. For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include any project for improvement of a structure required to comply with existing health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions.
- 2.29 Variance - A grant of relief from the requirements of this ordinance which permits construction in a manner otherwise prohibited by this ordinance where specific enforcement would result in unnecessary hardship.

### Section 3. General District Provisions

#### 3.1 Areas to Which This Article Applies

The regulations and controls set forth in this article shall be applied to all areas of special flood hazard within the Town of Spring Hill, Tennessee.

### 3.2 Basis for Establishing the Areas of Special Flood Hazard

The area of special flood hazard identified by the Federal Emergency Management Agency in its Flood Insurance Rate Map and Flood Insurance Study, dated May 4, 1987, and hereby made a part of the official zoning map and this ordinance as an overlay district on the base zoning district. This shall not prohibit the application of the regulations to lands which can be demonstrated by competent engineering survey to lie within the floodplain, conversely and land which can be demonstrated by competent engineering to lie beyond the floodplain shall not be subject to these regulations.

### 3.3 Rules for Interpretation

In interpreting the provisions of this chapter each provision shall be considered as minimum requirements, liberally construed in favor of city and neither limit nor repeal any powers granted to the city under state statutes. When interpretation of the district boundaries is necessary the following shall apply:

#### 3.3(1) Areas Within Incomplete Flood Data

The initial location of the general floodplain district boundaries is based upon the experienced floods as represented on the official zoning map or special overlays thereto. The specific bounds of this district as well as the floodway and flood fringe portions of the general floodplain districts are not determined until an application for a building permit is filed.

#### 3.3(2) Use of Available Flood Data

The building inspector shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source, as criteria for requiring that new construction, substantial improvements, or other development within an area of special flood hazard shall be in compliance with all provisions of Sections 3 and 5 of this article. This includes

base flood data submitted with subdivision proposals and other proposed developments greater than fifty (50) lots or five (5) acres, whichever is less, including manufactured home parks and subdivisions.

3.3(3) Questions Concerning Location of District Boundaries

Where interpretation is needed as to the exact location of any of these districts as shown on the official zoning map, the Board of Appeals shall make the necessary interpretation. The person(s) contesting the location of the district boundary shall be afforded reasonable opportunity to present data as set forth in Section 3.2, above.

3.4 Conflict with Other Provisions

The provisions of this district are intended to overlay portions of other base districts which are affected by flooding. Therefore, where any conflict exists between the provisions of this article and any other provisions of this ordinance or any other ordinance, code, law, etc., of the city, these provisions shall govern. Provided, however, that these provisions shall not be construed as allowing any use, building or other structure within an area subject to flood which is otherwise prohibited within the base zoning district.

3.5 Methods Used to Analyze Flood Hazards

This article relies upon two distinct procedures for analyzing the flood hazard affecting specific lands. The procedure outlined in Section 3.5(1), below, applies in instances where specific floodplain information studies have been completed and floodway and flood fringe have been established.

The procedure set forth in Section 3.5(2), below, applies in those instances where known flooding occurs but insufficient data currently exists to establish a specific floodway or flood fringe district.

3.5(1) Methods Used to Analyze Flood Hazards in Areas Covered by Floodplain Information Studies

In areas subject to flood where specific floodplain information has been established as noted in Section 3.2, then such data shall be utilized in locating the floodway and flood fringe.

3.5(2) Methods Used to Analyze Flood Hazards in Areas Subject to Flooding Where Specific Floodplain Information Studies Are Not Available

Within areas subject to flooding where insufficient data is available to establish the floodway and flood fringe, this article relies upon a two (2) step process for reasonable analysis of the flood hazard affecting specific lands. The official zoning map adopted as part of this ordinance provides the first step by delineating a general floodplain district determined to be subject to flooding based upon evidence of past flood events.

The second step involves a determination of the flood hazard at the site of any proposed special exception. All uses, other than open-space uses, are special exceptions under the terms of this article and require a case by case evaluation by the Board of Appeals with expert technical assistance, where necessary. The Board shall, where applicable.

3.5(2.1) Estimate the discharge of the regulatory flood which is representative of large floods known to have occurred on the particular streams subject to this article. It is in the general order of a flood which could be expected to occur on the average of once every one hundred (100) years.

3.5(2.2) Determine the specific flooding threat at the site of the proposed special exception and determine whether the use is located in a floodway or flood fringe, area by:

- Calculation of water surface elevations and flood protection elevations based upon a hydraulic analysis of the capacity of the stream channel and overbank areas to convey the regulatory flood. Flood protection elevation shall be one (1) foot above the water-surface elevations of the regulatory flood.
- Computation of the floodway required to convey this flood without increasing flood heights to an extent which would cause substantial upstream or reasonably anticipated future development.
- Computation of increased flood heights caused by any encroachment shall be based upon the reasonable assumption that there will be an equal degree of encroachment on both sides of the stream within that reach if such assumption is feasible in light of the topography within that reach.
- Generally, any increase in the flood stages attributable to encroachment on the floodplain of any river or stream shall not exceed 0.5 foot in any one reach or the cumulative effect of several reaches.

3.5(3) Evaluate the effects of the proposed use upon the public health, safety, and general welfare in light of the purposes of this ordinance and the standards established herein and deny, grant, or conditionally grant the application for the proposed use.

### 3.6 Warning and Disclaimer of Liability

The degree of flood protection required by this article is considered reasonable for regulatory purposes and is based on engineering and scientific methods of study. Larger floods may occur on rare occasions or flood heights may be increased by man-made or natural causes, such as bridge openings restricted by debris. This article does not imply that areas outside the floodplain

district will be free from flooding or flood damages. This article shall not create liability on the part of the city or any officer or employee thereof for any flood damages that result from reliance on this article or any administrative decision lawfully made thereunder.

#### Section 4. Floodway District Provisions

##### 4.1 Permitted Uses

The following specific uses which have a low flood damage potential and do not obstruct flood flows may be permitted within the general floodplain district to the extent they are not prohibited by the base zoning district or any portion of this ordinance or any other ordinance of the city and provided they do not require structures, fill, or storage of materials or equipment. But no use shall adversely affect the capacity of the channels of floodways or any other drainage facility or system.

- 4.1(1) Agricultural uses such as general farming, pasture, grazing, outdoor plant nurseries, horticulture, viticulture, truck farming, forestry, sod farming, and wild crop harvesting;
- 4.1(2) Industrial and commercial uses such as loading areas, parking areas, airport land strips;
- 4.1(3) Private and public recreational uses such as golf courses, tennis courts, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife and nature preserves, target ranges, trap and skeet ranges, hunting and fishing areas, hiking and horseback riding trails;
- 4.1(4) Residential uses such as lawns, gardens, parking areas, and play areas.

##### 4.2 Special Exceptions

Other uses as indicated in this section are allowed as special exceptions within the floodway to the extent they are not prohibited by the base zoning district provided they do not increase flood heights, comply with the provisions of Section 4.3, below, and other standards established in this article; and

any conditions attached by the Board of Appeals to the issuance of a conditional use permit. Special exceptions include:

- 4.2(1) Uses or structures accessory to open space or uses permitted as special exceptions;
- 4.2(2) Circuses, carnivals, and similar transient amusement enterprises;
- 4.2(3) Drive-in theaters, new and used car lots, roadside stands, and signs;
- 4.2(4) Extraction of sand, gravel and other materials;
- 4.2(5) Marinas, boat rentals, docks, piers, and wharves;
- 4.2(6) Railroads, streets, bridges, utility transmission lines, and pipe lines;
- 4.2(7) Storage yards for equipment, machinery or materials;
- 4.2(8) Kennels and stables;
- 4.2(9) Replacement manufactured home in an existing manufactured home park in accordance with provisions set forth in Sections 5.1(5.1) and 5.1(5.2).
- 4.2(10) Other uses similar in nature to uses described in Sections 4.2(1) thru 4.2(8) above, which are consistent with the provisions set out in this article.

#### 4.3 Standards for Special Exceptions Within the Floodway District

No structure (temporary or permanent), fill (including fill for roads and levees, deposit, obstruction, storage of materials or equipment), or other uses shall be permitted in the floodway unless certification (with supporting technical data) by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during occurrence of the base flood discharge.

Consideration of the effects of a proposed use shall be based on a reasonable assumption that will be an equal degree of encroachment extending for a significant reach on both sides of the stream if such assumption

is feasible with the prevailing topography. In addition all special exceptions which may be permitted within the floodway, shall be subject to the standards contained in Section 8 and the following standards:

4.3(1) Fill

No fill or other encroachment shall be permitted within the designated floodway that would cause an increase in the 100-year flood elevation. Any fill or other materials permitted shall be protected against erosion by rip-rap, vegetation cover, or bulkheading.

4.3(2) Structures (Temporary or Permanent)

4.3(2.1) Structures shall not be designed for human habitation.

4.3(2.2) Structures shall have a low flood-damage potential.

4.3(2.3) The structure or structures, if permitted, shall be constructed and placed on the building site so as to offer the minimum obstruction to the flow of flood waters. Whenever possible, structures shall be constructed with the longitudinal axis parallel to the direction of flood flow. So far as practicable, structures shall be placed approximately on the same flood-flow lines as those of adjoining structures.

4.3(2.4) Structures shall be firmly anchored to prevent flotation which may result in damage to other structures, restriction of bridge openings and other narrow sections of the stream or river; and

4.3(2.5) Service facilities such as electrical and heating equipment shall be constructed at or above the level of the regulatory flood for the particular area or flood-proofed above the level of the regulatory flood.

#### 4.3(3) Storage of Material and Equipment

The storage or processing of materials that are, in time of flooding, buoyant, flammable, explosive, or could be injurious to human, animal, or plant life is prohibited. Storage of other material or equipment may be allowed if not subject to major damage by floods and firmly anchored to prevent flotation or if readily removable from the area within the time available after flood warnings.

### Section 5. Flood Fringe Provisions

#### 5.1 Permitted Uses

Structural or other uses may be permitted within the flood-fringe as special exceptions to the extent they are not prohibited by the base zoning district or by other portion of this ordinance or any other ordinance of the city and they meet the provisions specified below as applicable.

However, no use shall be constructed which will adversely affect the capacity of channels or floodways of any tributary to the main stream, drainage ditch, or any other drainage facility or system.

##### 5.1(1) Development Approval and Permits

Development approval and building permits shall be required for any construction, development, or improvement within a flood-fringe district.

##### 5.1(2) Residential Buildings and Uses

Any residential structure to be located within the flood-fringe shall be constructed so that the lowest floor (including basement) shall be at no point lower than one (1) foot above the level of the 100-year flood. The Board may also require an area at least twenty-five (25) feet beyond the principal building to be filled to the level of the 100-year flood.

##### 5.1(3) Non-Residential Buildings and Uses

Buildings and structures used for non-residential purposes shall ordinarily be elevated as

provided above, but may, in special circumstances, be otherwise elevated or flood-proofed by utilization of the measures set forth in Section 8, at an elevation no lower than one (1) foot above the 100-year flood.

5.1(4) Special Exceptions

The Board may authorize, at an elevation below the regulatory flood-protection elevation, uses listed in Section 4.2, of this article and similar uses which will not be subject to substantial flood damage and which will not cause flood damage to other lands.

5.1(5) Manufactured Homes

The construction of a new manufactured homes park, the expansion of an existing manufactured homes park, the placement of a manufactured home in an existing manufactured homes park, the placement of a manufactured home not in a manufactured homes park or the substantial improvement of any of the above in a flood-fringe district shall be allowed only if the following criteria is met:

- 5.1(5.1) All manufactured homes to be placed or substantially improved within Zones Al-30, AH, and AE shall be elevated on a permanent foundation.

The lowest floor of the manufactured home shall be above the base flood elevation and be securely anchored to an adequately anchored foundation system in accordance with the following provisions:

5.1(5.2) Tie Down Requirements

- (a) Over-the-top ties shall be provided at each of the four (4) corners of the mobile home, with two (2) additional ties per side at intermediate locations on mobile homes fifty (50) feet or greater in length ( a total of eight (8) ties are required), and one (1) additional tie per side on mobile homes less than fifty (50) feet in length (a total of six (6) ties are required);

- (b) Frame ties shall be provided at each of the four (4) corners of the mobile home, with five (5) additional ties per side at intermediate locations on mobile homes fifty (50) feet or greater in length (a total of fourteen (14) ties are required); and four (4) additional ties per side on mobile homes less than fifty (50) feet in length (a total of twelve (12) ties are required);
- (c) All components of the anchoring system be capable of carrying a force of forty-eight hundred (4,800) pounds; and,
- (d) Any additions to the manufactured home be similarly anchored.

5.1(5.3) Lots or pads are elevated on compacted fill so that the lowest habitable floor of the manufactured home is one (1) foot above the regulatory flood level.

5.1(5.4) Adequate surface drainage and easy access for manufactured home hauler are provided.

5.1(5.5) Load bearing foundation supports such as piers or pilings must be placed on stable soil or concrete footings no more than ten (10) feet apart, and if the support height is greater than 72 inches the support must contain steel reinforcement.

5.1(6) Other Structures

All structures shall be properly anchored to prevent flotation and lateral movement, and construction methods which are designed to minimize flood damage shall be employed. Flood resistant materials shall be used.

## Section 6. Small Streams and Shallow Flooding Provisions

6.1 For small streams where regulatory flood elevations or floodways have not been provided and the provisions of Sections 3.3 and 3.5, cannot be fulfilled, the following requirements shall apply:

6.1(1) No building or fill material shall be located within a distance of the stream bank equal to five (5) times the width of the stream at the top of the bank or twenty (20) feet on each side from top of bank, whichever is greater.

6.1(2) All new construction and substantial improvements of residential structures shall have the lowest floor, including basement, elevated to the depth number specified on the Flood Insurance Rate Map, in feet, above the highest and adjacent grade. If no depth number is specified, the lowest floor, including basement, shall be elevated at least two (2) feet above the highest adjacent grade.

6.1(3) All new construction and substantial improvements of nonresidential structures shall:

6.1(3.1) 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 (2) feet above the highest adjacent grade or,

6.1(3.2) Together with attendant utility and sanitary facilities be completely flood-proofed to or above the 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.

## Section 7. Administration and Enforcement

### 7.1 Administrator

The provisions of this article shall be administered and enforced by the City Building Inspector. In performance of administering and enforcing the provisions of this article he shall:

- 7.1(1) Review all development permits to assure that the permit requirements of this ordinance have been satisfied;
- 7.1(2) Advise 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.
- 7.1(3) Notify adjacent communities and the Department of Economic and Community Development, Local Planning Office, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.
- 7.1(4) Assure that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.
- 7.1(5) Verify and record the actual elevation (in relation to mean-sea-level) of the lowest floor (including basement) of all new or substantially improved structures.
- 7.1(6) Verify and record the actual elevation (in relation to mean-sea-level) to which the new or substantially improved structures have been flood-proofed.
- 7.1(7) When flood-proofing is utilized for a particular structure, the Building Inspector shall obtain certification from a registered professional engineer or architect.

- 7.1(8) 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) the Building Inspector 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 this article.
- 7.1(9) When base flood elevation data or floodway data have not been provided in accordance with Section 3, then the Building Inspector shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source, in order to administer the provisions of the article.
- 7.1(10) All records pertaining to the provisions of this ordinance shall be maintained in the office of the Building Inspector and shall be open for public inspection.

## 7.2 Permit Procedure

Application for a building permit shall be made to the Building Inspector on forms furnished by him or her prior to any development activities, and may include, but not be 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 structures, fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information is required.

### 7.2(1) Application Stage

- 7.2(1.1) Elevation in relation to mean-sea-level of the proposed lowest floor (including basement) of all structures.
- 7.2(1.2) Elevation in relation to mean-sea-level to which any non-residential structure will be flood-proofed.

7.2(1.3) Certificate from a registered professional engineer or architect that the non-residential flood-proofed structure will meet the flood-proofing criteria in Section 8.

7.2(1.4) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

7.2(2) Construction Stage

Provide a floor elevation or flood-proofing certification after the lowest floor is completed. 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 Building Inspector a certification of the elevation of the lowest floor or flood-proofed elevation.

Said certification shall be prepared by or under the direct supervision of a registered land surveyor or professional engineer and certified by same. When flood-proofing is utilized for a particular building, said certification shall be prepared by or under the direct supervision of a professional engineer or architect and certified by same. Any work undertaken prior to submission of the certification shall be at the permit holder's risk. The building inspector 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 said corrections required hereby, shall be cause to issue a stop-work order for the project.

7.3 Variances and Special Exceptions Procedure

The Spring Hill Board of Zoning Appeals is hereby authorized to serve as the appeals board in administering the provisions of this article.

7.3(1) Powers of the Board

7.3(1.1) Administrative Review

To hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Building Inspector in the enforcement or administration of this ordinance.

7.3(1.2) Special Exceptions

To hear and decide applications for special exceptions as specified in this article and for interpretation of the location of district boundaries.

7.3(1.3) Variances

To hear and decide appeals and requests for variances from the requirements of this article.

7.3(2) Variance Procedure

7.3(2.1) In passing upon such applications, the Board shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this ordinance, and:

- a. The danger that materials may be swept onto other lands to the injury of others.
- b. The danger to life and property due to flooding or erosion damage.
- c. The susceptibility of the proposed facility and its contents to flood damage on the individual owner.
- 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 compatibility of the proposed use with existing and anticipated development;
- h. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
- i. The safety of access to the property in times of flood for ordinary and emergency vehicles;
- j. The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site, and;
- k. The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

7.3(2.2) Upon consideration of the factors listed above, and the purposes of this ordinance, the Board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.

7.3(2.3) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

7.3(2.4) Conditions for Variances

- a. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering

the flood hazard, to afford relief; and in the instance of a historical building, a determination that the variance is the minimum necessary so as not to destroy the historic character and design of the building.

- b. Variances shall only be issued upon (i) a showing of good and sufficient cause, (ii) a determination that failure to grant the variance would result in exceptional hardship, and; (iii) 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.
- c. Any applicant to whom a variance is granted shall be given written notice specifying the difference between the base flood elevation to which the structure is to be built and stating that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

The Board shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency upon request.

### 7.3(3) Special Exceptions

Prior to consideration of any application for a special exception proposed for location within any area subject to flood, a plan containing the following information shall be submitted to the Board of Appeals for its consideration.

- 7.3(3.1) Plans drawn to scale showing the nature, location dimensions, and elevation of the lot, existing or proposed structures, fill, storage of materials, flood-proofing measures, and the relationship of the above to the location of the channel;

- 7.3(3.2) Description of the extent to which and the location of any watercourse to be altered or relocated;
- 7.3(3.3) A typical valley cross-section showing the channel of the stream, elevation of land areas adjoining each side of the channel, cross-sectional areas to be occupied by the proposed development, and high-water information;
- 7.3(3.4) Plans (surface view) showing elevation for contours of the ground at five (5) foot intervals (two (2) foot intervals if the slope is less than five (5) percent); pertinent structure, fill, or storage elevations; size, location, and spatial arrangement of all proposed and existing structures on the site; location and elevations of streets, water supply, sanitary facilities; photographs showing existing land uses and vegetation upstream and downstream, soil types and other pertinent information;
- 7.3(3.5) Specifications for building construction and materials, flood-proofing, filling, dredging, grading, channel improvement, storage of materials, water supply, and sanitary facilities;
- 7.3(3.6) Elevation of the proposed lowest floor including basement of all new or substantially improved structures;
- 7.3(3.7) Elevation to which any non-residential structure will be flood-proofed.

All proceedings and documents pertaining to each special exception request shall be maintained in the office of the Building Inspector and shall be open for public inspection. Prior to the commencement of any development activities including subdivision, manufactured home parks, apartments, or similar developments, development

approval as a part of other approvals necessary for the subject development shall be required by the planning commission. Application for development proposed to be located in an area subject to flood shall be made to the Building Inspector in conjunction with submission of required subdivision plats or site plans for approval by the planning commission.

7.3(3.8) Installation of valves or controls on sanitary and storm drains which will permit the drains to be closed to prevent back-up of sewage and storm waters into the buildings or structures. Gravity drainage of basements may be eliminated by mechanical devices.

7.3(3.9) Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities shall be designed and/or located as to prevent water from entering or accumulating within the components during conditions of flooding.

7.3(3.10) Location of any structural storage facilities for chemicals, explosives, buoyant materials, flammable liquids, or other toxic materials, which could be hazardous to public health, safety, and welfare in a manner which will assure that the facilities are situated at elevations above the height associated with the regulatory protection elevation or are adequately flood-proofed to prevent flotation of storage containers, or damage to storage containers which could result in the escape of the toxic materials into flood waters.

#### 7.4 Provisions Applicable to Utility Systems

Within any area subject to flooding, special provisions shall be made to flood-proof all utility and sanitary facilities up to the level of the 100-year flood. No plan for any use proposed shall be approved by the Board which does not comply with these provisions.

- 7.4(1) All new or replacement water supply and sanitary sewage systems, together with attendant facilities, shall be designed and constructed so as to minimize or eliminate flood damage, infiltration or inflow of floodwater into the system, and discharges or overflows from the system into floodwaters. On-site waste disposal systems, such as septic tanks and drain-fields, shall be designed and constructed so as to avoid impairment of their operation or contamination from them in time of flood.
- 7.4(2) All new or replacement gas or electrical distribution systems, together with attendant facilities, shall be designed and constructed so as to minimize or eliminate flood damages.
- 7.4(3) All new or replacement drainage systems, together with attendant facilities, shall be designed and constructed so as to minimize or eliminate flood damages.

It shall be the duty and responsibility of the developer, owner, contractor, or other responsible person to provide the Building Inspector a certification of the elevation of the lowest floor or flood-proofed elevation as built prior to occupancy of any structure. Said certification shall be prepared by a registered land surveyor, professional engineer or architect and certified by same.

In the review of all plans, the city shall:

- (1) Assure that all necessary State and/or Federal permits have been secured;
- (2) Notify neighboring communities and the State Coordinating Office prior to any alteration or relocation of a watercourse;
- (3) Assure that the flood carrying capacity within the altered watercourse is maintained.

7.4(4) Appeal to the Court

Any person aggrieved by any decision of the Board or any taxpayer may seek review by a court of competent jurisdiction of such decision in a manner provided by the laws of the State of Tennessee.

## Section 8. Flood-Proofing Provisions

### 8.1 General Provisions

Among the conditions attached by the Board of Appeals in its consideration for all new construction or substantial improvements located within any area subject to flooding may be the flood-proofing measures set forth within this section. All such flood-proofing measures shall be designed consistent with the flood protection elevation for the particular area, flood velocities, duration, rate of rise, hydrostatic and hydrodynamic forces, and other factors associated with the regulatory flood. The Board of Appeals shall require that the applicant submit a plan or document certified by a registered professional engineer or architect showing the regulatory flood protection elevation and associated flood factors for the particular area. Flood-proofing measures shall only apply to non-residential structures.

Flood-proofing measures may include, but not be limited to the following:

- 8.1(1) Anchorage to resist flotation and lateral movement.
- 8.1(2) Fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood waters. Designs for meeting this requirement must meet or exceed the following minimum criteria. A minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one (1) foot above grade. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
- 8.1(3) Use of paints, membranes, or mortars to reduce seepage of water through walls.
- 8.1(4) Addition to mass of weight to structures to resist flotation.
- 8.1(5) Installation of pumps to lower water levels in structures.

- 8.2(6) Construction of water supply and waste treatment systems so as to prevent the entrance of floodwaters.
- 8.2(7) Installation of pumping facilities or comparable practices for subsurface drainage systems for buildings or relieve external foundation wall and basement flood pressures.
- 8.2(8) Construction of walls to resist rupture or collapse caused by water pressure or floating debris.