

ORDINANCE NO.: 2015-046

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Amending the 1998 Code of Ordinances of the City of Columbia, South Carolina, Chapter 21, Stormwater Management and Sedimentation Control, Article III, Flood Damage Prevention, Division I, Generally, Sec. 21-125 Definitions to add Functionally dependent use and Sec. 21-134 Severability; Division 2, Administration, Sec. 21-151 Responsibility for administration; Sec. 21-154 Appeals and variances; and Division 3, Flood Hazard Reduction, Sec. 21-172 Specific standards; Sec. 21-173 Standards for streams without established base flood elevations or floodways; and Sec. 21-175 Standards for areas of shallow flooding

BE IT ORDAINED by the Mayor and Council this 16th day of June, 2015, that the 1998 Code of Ordinances of the City of Columbia, South Carolina, Chapter 21, Stormwater Management and Sedimentation Control, Article III, Flood Damage Prevention, Division I, Generally, Sec. 21-125 Definitions to add Functionally dependent use and add Sec. 21-134, Severability; Division 2, Administration, Sec. 21-151 Responsibility for administration; Sec. 21-154 Appeals and variances Division 2, Administration, Sec. 21-151 Responsibility for administration; Sec. 21-154 Appeals and variances; and Division 3, Flood Hazard Reduction, Sec. 21-172 Specific standards; Sec. 21-173 Standards for streams without established base flood elevations or floodways; and Sec. 21-175 Standards for areas of shallow flooding, are amended to read as follows:

DIVISION I. GENERALLY

Sec. 21-125. Definitions.

Functionally dependent use means 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.

Sec. 21-134. Severability.

If any provision, clause, sentence or paragraph of this article or the application thereof to any person or circumstances shall be held invalid, that invalidity shall not affect the other provisions of this article which can be given effect without the invalid provision or application, and to this end the provisions of this article are declared to be severable.

DIVISION 2. ADMINISTRATION

Sec. 21-151. Responsibility for administration.

The city engineer or the city engineer designee is hereby appointed to administer and implement the provisions of this article.

Sec. 21-154. Appeals and variances.

(a) *Establishment of appeals board.* The building board of adjustments and appeals as established by the city council shall hear and decide appeals and requests for variances from the requirements of this article.

The building board of adjustments and appeals shall hear and decide appeals when it is alleged there is an error in any requirement, decision or determination made by the city engineer or his designee in the enforcement or administration of this article.

(b) *Right to appeal.* Any person aggrieved by the decision of the building board of adjustments and appeals, or any taxpayer, may appeal such decision to the court of common pleas, as provided by state law.

(c) *Historic structures.* Variances may be issued for the repair or rehabilitation of historic structures upon the 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 necessary to preserve the historic character and design of the structure.

(d) *Functionally dependent uses.* Variances may be issued for development necessary for the conduct of a functionally dependent use, provided the criteria of this article are met, no reasonable alternative exists, and the development is protected by methods that minimize flood damage and create no additional threat to public safety.

(e) *Criteria.* In passing upon such applications, the building board of adjustments and appeals shall consider all technical evaluations, all relevant factors, all standards specified in other sections of this article, and:

- (1) The danger that materials may be swept onto other lands to the injury of others;
- (2) The danger to life and property due to flooding or erosion damage;
- (3) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
- (4) The importance of the services provided by the proposed facility to the community;
- (5) The necessity of the facility to a waterfront location, in the case of a functionally dependent facility;
- (6) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
- (7) The compatibility of the proposed use with existing and anticipated development, and the relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
- (8) The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
- (9) The safety of access to the property in times of flood for ordinary and emergency vehicles;
- (10) The expected height, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and,
- (11) The cost of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges.

(f) *Findings.* Findings listed above shall be submitted to the building board of adjustments and appeals, in writing, and included in the application for a variance. Additionally, comments from the Department of Natural Resources, Land, Water and Conservation Division, State Coordinator's Office, must be taken into account and included in the permit file.

(g) *Floodways.* Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result unless a CLOMR is obtained prior to issuance of the variance. In order to ensure the project is built in compliance with the CLOMR for which the variance is granted the applicant must provide a bond for 15% of the cost to perform the development.

(h) *Conditions.* Upon consideration of the factors listed above and the purposes of this article, the building board of adjustments and appeals may attach such conditions to the granting of variances as it deems necessary to further the purposes of this article. The following conditions shall apply to all variances:

- (1) Variances may not be issued when the variance will make the structure in violation of other federal, state, or local laws, regulations, or ordinances.

- (2) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
- (3) 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.
- (4) 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 or extraordinary public expense, create nuisance, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
- (5) Any applicant to whom a variance is granted shall be given written notice specifying the difference between the base flood elevation (BFE) and the elevation to which the structure is to be built and a written statement that the cost of flood insurance will be commensurate with the increased risk. Such notification shall be maintained with a record of all variance actions.
- (6) A variance shall not be issued for unpermitted development or other development that is not in compliance with the provision of this ordinance.
- (7) The city engineer or the city engineer designee shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency upon request.

DIVISION 3. FLOOD HAZARD REDUCTION

Sec. 21-172. Specific standards.

In all areas of special flooding hazard where base flood elevation data has been provided, as set forth in section 21-127 or section 21-153(9), the following provisions are required:

- (1) *Residential construction.* New construction and substantial improvement of any residential structure (including manufactured homes) shall have the lowest floor, including basement, elevated no lower than two feet above the base flood elevation. No basements are permitted. Should solid foundation perimeter walls be used to elevate a structure, flood openings sufficient to facilitate the unimpeded movement of floodwaters shall be provided in accordance with standards of subsection (3) of this section.
- (2) *Nonresidential construction.* New construction and substantial improvement of any commercial, industrial or nonresidential structure (including manufactured homes) shall have the lowest floor, including basement, elevated no lower than two feet above the level of the base flood elevation. No basements are permitted. Structures located in all A zones may be floodproofed in lieu of being elevated provided that all areas of the structure below the required elevation are watertight with walls substantially impermeable to the passage of water, and use 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. Such certification shall be provided to the official as set forth in section 21-152(2).
- (3) *Elevated buildings.* New construction and 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 floodwaters to automatically equalize hydrostatic flood forces on exterior walls.
 - a. Designs for complying with this requirement must either be certified by a professional engineer or architect or meet the following minimum criteria:
 1. A minimum of two openings shall be provided having a total net area of not less than one square inch

for every square foot of enclosed area subject to flooding;

2. The bottom of all openings shall be no higher than one foot above grade; and
3. Openings may be equipped with screens, louvers, valves or other coverings or devices provided they permit the automatic flow of floodwaters in both directions.
 - b. Electrical, plumbing and other utility connections are prohibited below the base flood elevation.
 - c. 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).
 - d. The interior portion of such enclosed area shall not be partitioned or finished into separate rooms.

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

- a. All manufactured homes placed or substantially improved on individual lots or parcels, in expansions to existing manufactured home parks or subdivisions, or in substantially improved manufactured home parks or subdivisions must meet all the requirements for new construction, including elevation and anchoring.
- b. All manufactured homes placed or substantially improved in an existing manufactured home park or subdivision must be elevated so that:
 1. The lowest floor of the manufactured home is elevated no lower than two feet above the level of the base flood elevation.
 2. The manufactured home chassis is supported by reinforced piers, or other foundation elements of at least an equivalent strength, of no less than 36 inches in height above grade.
 3. The manufactured home must be securely anchored to the adequately anchored foundation system to resist flotation, collapse and lateral movement.
 4. In 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 subsection (4)a or b of this section.
- c. All recreational vehicles placed on sites must either:
 1. Be fully licensed and ready for highway use; or
 2. Meet all the requirements for new construction, including anchoring and elevation requirements of subsections (4)b.1 and 3 of this section.

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

(5) *Floodways.* Located within areas of special flood hazard established in section 21-127 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwater, which carries debris and potential projectiles and has erosion potential, the following provisions shall apply:

- a. Encroachments are prohibited, including fill, new construction, substantial improvements and other development, unless certification (with supporting technical data) by a professional engineer is provided demonstrating that encroachment will not result in any increase in flood levels during the base flood discharge.
- b. If subsection (5)a of this section is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of this division.
- c. The placement of manufactured homes (mobile homes) is prohibited except in an existing manufactured home (mobile home) park or subdivision. A replacement manufactured home may be placed on a lot in an existing manufactured home park or subdivision provided the anchoring standards of section 21-171(2) and the elevation standards of subsection (1) of this section are met.

Sec. 21-173. Standards for streams without established base flood elevations and floodways.

Located within the areas of special flood hazard established in section 21-127, where small streams exist but where no base flood data has been provided or where no floodways have been provided, the following provisions apply:

- (1) No encroachments, including fill material or structures, shall be located within a distance of the stream bank equal to five times the width of the stream at the top of the bank or 20 feet on each side from the top of the bank, whichever is greater, unless certification by a professional engineer is provided demonstrating that such encroachments will not result in any increase in flood levels during the occurrence of the base flood discharge.
- (2) New construction and substantially improved structures shall be elevated or flood proofed to elevations established in accordance with section 21-153(9) or the lowest floor (including basement) shall be elevated at least three feet above the highest adjacent grade.

Sec. 21-174. Standards for streams with established base flood elevations but without floodways.

Along rivers and streams where Base Flood Elevation (BFE) data is provided but no floodway is identified for a special flood hazard area on the FIRM or in the FIS, the following provisions apply:

- (1) No encroachments including fill, new construction, substantial improvements, or other development shall be permitted unless certification with supporting technical data 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 level more than one foot at any point within the community.

Sec. 21-175. Standards for subdivision proposals.

- (a) All subdivision proposals and other proposed new development shall be consistent with the need to minimize flood damage and are subject to all applicable standards in these regulations.
- (b) All subdivision proposals and other proposed new development shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.
- (c) All subdivision proposals and other proposed new development shall have adequate drainage provided to reduce exposure to flood hazards.
- (d) The applicant shall meet the requirement to submit technical data to FEMA when a hydrologic and hydraulic analysis is completed that generates base flood elevations.

Sec. 21-176. Standards for areas of shallow flooding (AO Zones).

Located within the areas of special flood hazard established in section 21-127 are areas designated as shallow flooding areas (AO zones). 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 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 adjacent grade. If no depth number is specified, the lowest floor, including basement, shall be elevated at least three feet above the highest adjacent grade.
- (2) All new construction and substantial improvements of non-residential structures 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 three feet above the highest adjacent grade; or
 - b. Together with attendant utility and sanitary facilities, be completely floodproofed to or above that level so that any space below that level is watertight with walls substantially impermeable to the passage of

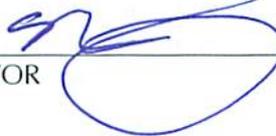
water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

(3) All structures on slopes must have drainage paths around them to guide water away from the structures.

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Requested by:

Assistant City Manager Gentry _____


MAYOR _____

Approved by:


City Manager _____

Approved as to form:


City Attorney _____

ATTEST:

City Clerk _____

Introduced: 6/2/2015
Final Reading: 6/16/2015